Rethinking the henge monuments of the British Isles

Lucy Cummings

Submitted for the Degree of Doctor of Philosophy

School of History, Classics and Archaeology
Newcastle University

July 2019

Word count: 88,491

Abstract

The henge monuments of Britain and Ireland are some of the best, and yet most poorly understood, monuments of Neolithic/Bronze Age Europe. Defined as later Neolithic enclosures with a circular bank, inner ditch, and usually one or two entrances, henges have been considered as a single category of site since they were first identified in the 1930s. As the category grew, and further attempts to sort the variety into subtypes created new terms, it became increasingly apparent that the wide variation in their size and architecture meant that they cannot simply be assumed to share a single use and meaning.

Drawing from the large number of sites currently described as henge monuments, this thesis highlights the effect of classification on loosening the rigidity in the definition of site 'types', explores the problematic nature of typology within archaeology, and examines its long-lasting effect on understanding and public perception of sites. This thesis uses a relational approach to typology to argue that there are small regional 'types' visible within the variation of the henge class, but that a clear henge type can only be considered loosely. It also examines the importance of a biographical approach, in understanding why sites were constructed and how such an approach can be combined with a typological approach to extend the interpretation and investigate sites at a range of scales. The thesis discusses the development of, and the variation within henge monuments, whilst also showing that there are similarities across a wider range of Late Neolithic and Early Bronze Age circular enclosures at different periods. A database of all sites previously and currently considered to be henge monuments, collated using a variety of sources (e.g. HERs, catalogues, and excavation reports) accompanies this thesis, and provides the first such catalogue since Harding and Lee's influential 1987 publication.

Word Count: 299

Acknowledgements

This thesis would not have been possible without the help and support of so many people. Without *Northern Bridge DTP* AHRC funding this thesis would never have happened, so thanks must first and foremost go to them for seeing the potential in my application and for the opportunities which the PhD and the DTP have provided over the years. My initial application would not have been successful without the support of Dr Chris Fowler and Dr Jan Harding who had also inspired and encouraged me to continue my studies from undergraduate level through to PhD. My supervisors have been a constant source of inspiration, motivation and support: Dr Chris Fowler whose patience, open door, and advice have been invaluable; and Dr James Gerrard whose advice and knowledge of databases have helped improve draft chapters.

Thanks must also go to my family - my parents, sister, and grandparents who are a constant source of support and humour. Extra thanks must go to my partner Christian for being there with a constant supply of Diet-Coke and encouragement during the final months of this process, for proof-reading every word, and for taking interest in a topic so different from his own interests.

Over the past few years I have met countless colleagues at conferences, events, and training programmes, many of which have listened to anxious rants and ideas relating to this project. A special mention is needed to those involved in NEBARSS who I can still rely on for support and advice. Last but by no means least, special thanks must go to those colleagues who I had the pleasure of sharing a workspace with for the past few years (Mareike Ahlers, Lauren Emslie, Chris Mowat to name a few) and who have listened in times of panic and self-doubt, and most-importantly who knew the correct response to ‘pub?’.

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Chapter 1 – Introduction

1.1 Thesis Statement

The henge monuments of Britain and Ireland are some of the best-known monuments of Neolithic Europe; they are also some of the most poorly understood. Since they were first identified in the 1930s - and defined as later Neolithic enclosures with a circular bank, inner ditch, and usually one or two entrances - henges have been considered as a single category of site. Yet it is now apparent that wide variation in their size and architecture means they cannot be assumed to share a single use and meaning: understandably this variation in their design and use has important implications for understanding later Neolithic society.

Work from the 1930s to a 1987 publication by Harding and Lee focused on trying to justify the use of the term henge and accept this category of site as a single site-type. Many publications in this period attempted to rework the original definition and attempted to classify the growing number of sites within this group (Clark 1936; Piggott and Piggott 1939; Atkinson 1951; Clark 1954; Wainwright 1969; Burl 1969; Catherall 1971; Clare 1986; 1987; Harding and Lee 1987). The continued re-classification created an ever-growing corpus of sites with few similarities which loosely conformed to the original term and its definition. This has resulted in a number of hybrid terms such as hengiform, henge-enclosure and mini-henge being used to further subdivide the classification system defined by the Piggotts in 1939. The terms are now used to classify a number of sites which share broadly similar characteristics and are circular or near-circular in form. This is problematic due to the assumption that round features in the landscape are generally similar without archaeological investigation which could identify these as belonging to later periods, such as Iron Age ring-ditches, or later medieval circular mill buildings (Harding and Lee 1987). The dating of features often known only through cropmarks is of course difficult and this has resulted in many HER records listing several possibilities for site identification (e.g. 'possible henge/ possible ring-ditch/circular enclosure of unknown date'). As a result of the discussion and expansion of the henge classification there is mistrust in the term itself and of the assumption that it is a stand-alone type site. Mistrust of the classification and groupings of these enclosures is also apparent in recent literature which has questioned the focus on morphological similarities at sites which lack archaeological investigations (e.g. Gibson 2012b).

This thesis will collate information on sites previously or currently considered to be henge monuments into a relational database. Taking inspiration from relational theory, the data will be analysed to consider several research questions outlined below.

1.2 Research Questions

This thesis draws together a large number of sites to investigate at a number of scales, from how we classify them as archaeologists, to trying to understand the sites themselves using a more fluid and biographical approach. It, therefore, attempts to answer the following research questions:

- How has the focus on classification and monument typology in the archaeological literature between 1932 and 1987 affected our understanding of henge monuments, and how has this affected the recording and classification of sites within HER and NMR records?
- Does a relational typology successfully help to distinguish between the variations found between all sites currently considered as henges/hengiform/possible henges?
- Is a new henge typology needed, and how could it be useful?
- For sites with internal and external features, how did these sites develop over time, including phases of repeated re-cutting of ditches? Is there any patterning to such sequences, or do they vary from site to site?
- Is it possible to see both an overarching meaning to the form of the monument and a more locally specific functional use for the space; is there a direct pattern of correlation between morphological characteristics and the use of the space before, during or after the earthwork's construction?
- Is there a pattern of use which can support the notion of the site type, or is the picture more varied, with regional patterns/uses and sequences? How do we then interpret these sites and their significance to the communities which built, used and re-visited them?
- Why were these spaces enclosed?
- How do contemporary circular monuments relate to each other (e.g., timber circles, stone circles, henge monuments); are they all part of a similar expression of particular beliefs? Is it possible through the detailed investigation of some sites to suggest a shared meaning for these circular form of enclosure?

- Does commemoration or religion appear to be a shared connection between archaeologically distinct type-sites? Is the idea of place-making (see Younger 2015) something which can be seen at a larger scale than just at individual site level?

A database has been created comprising of data collected from a variety of sources. This database will allow the questions above to be addressed. Through the systematic conversion of excavation reports into database entries, features, sequence and events can be seen, investigated and compared. Developing a theoretical approach which forces us to rethink our use of basic typology on morphological grounds will allow us to draw out patterns, similarities and differences within the collection of sites all loosely clustered within the one site type of henge.

1.3 Thesis Outline

This section briefly summarises the structure of this thesis, describing the content of each chapter and its purpose. The thesis begins with a critical evaluation of the history of research into henge monuments (*Chapters 2* and *3*), followed by the development of a relational approach which can be adopted to avoid some of the fundamental problems evident in earlier studies (*Chapter 4*). *Chapter 5* studies characteristics of henge monuments within the database whilst sequence and chronology are the focus of *Chapter 6. Chapter 7* then discusses patterns in form and use, using complex and site level case studies to highlight the similarities and variation within this type. This structure emphasises the importance of viewing these sites and landscapes as places which have developed over time, as changing and long-term projects, and as an area for multiple uses which would have been perceived differently by different people over time.

Chapter 2 will critically review literature relating to the identification of henges, specifically how archaeologists have taken Kendrick's (1932) terminology and expanded definitions and sub-groups of this monument 'type'. This includes a critique of typology and the current limitations on interpretation conventional approaches to typology creates. *Chapter 3* then outlines the focus on social complexity and landscape archaeology, and critically assesses all the 20th and 21st century interpretations of henge use. These opening chapters outline the history of henge research and serve to demonstrate the result of numerous re-classification schemes on our current understanding and use of the terms both within the wider non-academic domain and the public's perception and understanding of these sites.

Chapter 4 focuses on the use and critiques of typology alongside theoretical approaches to sites. It begins with a critical review of the role of typology, before outlining the methods of data collection and analysis within this project. Through a discussion on relational theory, alongside biography, the chapter aims to develop an approach which views henge monuments as dynamic and changing spaces. This chapter will outline the move away from typologies and classification based solely on morphological features towards nuanced relational typologies and assess how this may be useful in order to understand the large number of sites listed within the catalogue. The chapter will develop an approach which aims to balance a typological and biological study, in order to combine detailed interpretation of individual sites placed within the wider context of henge typology.

Chapter 5 identifies patterns and variations in the sites within the corpus beginning with analysis of the earthwork form, followed by analysis of other characteristics including features, size, orientation and landscape setting. The aim of this chapter is to move beyond a 'flat' analysis: beyond classification based on form alone with no concept of temporal changes, uses and elaboration. *Chapter 6* then builds upon this analysis, by focusing on dating evidence and the interpretation of site sequence for the sites for which this is possible. These chapters will assess the use of a relational typology approach and discuss its success in relation to henge monuments.

Chapter 7 will focus on a number of case studies, with a detailed exploration of sites at a range of scales, from regions to local landscapes to monumental complexes and to the henge itself. By adopting a more detailed approach to individual sites, this chapter allows for biographical accounts of site construction, use and meaning. This chapter will build upon patterns or groups highlighted through Chapters 5 and 6, allowing the relational analysis of typology to be integrated with a biographical approach highlighting how a mixture of such approaches can be used to investigate a group of sites at a range of levels.

This chapter will lead into the final chapter, *Chapter 8*, which summaries the findings of this thesis. The chapter will argue that small regional and chronological 'types' emerge from the variation within sites currently considered to be henge monuments, but it is impossible to argue for a clear henge type due to the variation in form, use and chronological period. The use of large-scale analysis supported by small scale case studies of site biographies also highlights the importance of using a range of investigative scales to provide a thorough

interpretation of a large group of sites. The chapter will also make recommendations for further research to aid future understanding of henge monuments and their relationship with other contemporary monuments.

Chapter 2 – A History of Henge Typology

2.1 The original definition

Extant henge monuments have been recorded throughout history with several medieval records relating to individual sites. One such example is the inclusion of a sketch in the Scala Mundi manuscript in Cambridge dating to 1441-1467 (Pitts 2007). This early reference includes the name 'Stonehenge' and a Latin phrase which reads:

> '*That year Merlin, not by force but by art, brought and erected the giant's round from Ireland, at Stonehenge near Amesbury'* (Pitts 2007).

Stonehenge, with its huge megalithic structure, was a focus of mystery and curiosity. Medieval foundation myths about Stonehenge are recorded from c. 1130 and refer to the immense effort needed to lift the stone lintels; this led to the association of such structures with magic and mythical strength, with many early texts stating that Stonehenge was a creation of Merlin's who sought to create a memorial to the dead (Pitts 2007). Though many extant sites are referred to in historical texts, they were not yet considered in relation to each other and therefore were not investigated as a site 'type'.

Henges were first defined as a *site-type* by Thomas Kendrick in a chapter titled '*The "Henge" Monuments'* in a 1932 publication about the archaeology of England and Wales (Kendrick and Hawkes 1932). The use of "henge" in the chapter title is made tentative through the use of inverted commas, suggesting Kendrick's use of the word is cautious (Bradley 2011a: xv). Kendrick grouped several sites which he considered to be prehistoric sacred places under this 'curious heading' which he could not sort into chronological periods (Kendrick and Hawkes 1932: 83). He noted that his grouping of sites, which included Stonehenge, Woodhenge and many 'empty rings' (*Ibid*), could be problematic and might not have been met with approval by other scholars:

> '*we are not agreed that all these monuments are of about the same age and are ceremonial sites, that is to say "temples" and "meeting-places"; but on the whole I think myself that the chances are in favour of their having that much in common. So, for the sake of simplification I am venturing to segregate them here as being monuments that are presumably not burial-places, and belong, as far as it is possible to tell, either to the late Neolithic period or the first half of the Bronze Age…'* (Kendrick and Hawkes 1932: 83)

This first use of the term came directly from the names of Stonehenge and nearby Woodhenge and the recent archaeological investigation which had occurred at the sites

(Kendrick and Hawkes 1932: 83). However, the origins of the name Stonehenge lie in the Old English 'Stan- Hen(c)gen' describing a stone gallows or setting of stones and lintels (Bradley 2011a: xv) and so 'henge' refers directly to a structure with stone uprights and lintels. Kendrick took this name from Stonehenge and Woodhenge, but lists them alongside Avebury, the Sanctuary, Durrington Walls and Dorchester and suggests 'empty rings' are part of the same family (Kendrick and Hawkes 1932: 95-97). For Kendrick a henge was composed of a roughly circular area which he considered to have a ceremonial function. Other than the sources from which he took the term, there is no implication that a stone structure was regarded as an *essential* characteristic (Harding and Lee 1987: 3). This initial introduction to 'henge' monuments was tentative and cautious using words like 'venturing', 'presumably', and 'daresay' (Kendrick and Hawkes 1932: 83).

'Henges' as features within the landscape became the focus of much investigative work and the term is well and truly established within archaeological literature since 1932 (e.g. Kendrick and Hawkes 1932; Atkinson 1949; 1950; 1951; Burl 1969 through to Harding 2003; 2012; Gibson 2012b). The use of the derivative name 'henge' is exemplified through the naming of sites such as 'Sea*henge*' (Brennand *et al.* 2003); the site acquired its name from the press and visiting public in 1998 that likened it to Stonehenge because of the circular layout of uprights. The site was a circle composed of split posts encircling an inverted tree stump and was probably not re-entered due to the proximity of each timber effectively creating a continuous barrier (Brennand *et al.* 2003). The site did not have a bank or ditch and consisted purely of timber uprights.

The term has since been continuously re-defined and applied to a variety of sites with Clark providing the first definition for a henge based on morphological features; he considered the internal ditch, external bank, and the stone or post settings within the internal area as fundamental characteristics of these monuments (1936: 23). Although Clark's classification scheme requires a henge to possess internal structures, his 1936 publication does supply a list of *probable 'henge'* sites which are similar in shape but lack evidence or a record of these internal structures (1936: 23, Appendix II). This has been criticised, as stone and timber circles are also found in isolation and so can be considered as separate to the bank and ditch. The Piggotts (1939) altered Clarks definition to suggest that sites 'may' include internal structures but that this was not a required characteristic and Atkinson (1951)

commented on the difficulty in creating a comprehensive definition, but also added a chronological range and excluded all sites with a middle Bronze Age date or later. The definition is often altered within the following attempts at classification; however, the general accepted definition from these early publications is of a circular area enclosed by an internal ditch and external bank with one or two entrances. As will be shown in the following section, the variation of sites which can be henges or henge-like has stretched the definition to a point that the group of monuments considered 'henges' now also includes generally circular sites which do not immediately have a domestic function (see *Table 1*[1]).

[1] Note that Harding and Lee (1987) was the largest and last major reclassification of known sites. This table lists the key information and names of the sites used in these publications; it sits alongside the critical review of the literature in the section below.

Table 1: Summary of henge classification literature

Author (year)	Definition of henge	Classification system	Total number of sites	Sites as listed in the publications
Kendrick (Kendrick and Hawkes **1932**)	**First terms this site type as 'henge'** A group of prehistoric 'sacred places', having a ceremonial function and circularity in common, though 'presumably not burial-places' and belong to the LNeo/EBA	**Does not attempt to divide them**	6	Stonehenge, Woodhenge, 'The Sanctuary' (stone and timber circles – no visible earthwork), Avebury, Durrington Walls, Dorchester (Big Rings)
Clark (**1936**)	**Defines henges as including**: - A central area, more or less circular, with timber or stone uprights. - A bank and where this was created by excavation for material, a ditch, normally inside the bank. - One or two entrances through the bank (and ditch) giving access to the central area	**No classification system**	30	Includes 2 appendices which are split between known examples and probable examples of henge sites based upon his definition **Sites which belong to the henge class (appendix 1)**: Arbor Low, Avebury, Broomend of Crichie, the Bull Ring, Mayburgh, Stennis circles (Ring of Brodgar and Ring of Stennis), Stonehenge, Stripple Stones, Woodhenge, Arminghall **Probably belong to the henge class (lack the evidence or recording of internal structures) (appendix 2)**: Dorchester Circles, Durrington Walls, Gorsey Bigbury, Hutton Moor, King Arthurs Round Table, Knowlton Circles, Marden, Priddy circles, Thornborough
Piggott and Piggott (**1939**)	**Essential features**: Ditch with exterior bank, and at least one entrance, may contain settings of stones or posts ***Excludes****: timber and stone circles as essential elements BUT there were no examples of a site combining a bank and ditch and stone settings in their study area of Dorset*	**Class I** – single entrance **Class II** – double opposed entrances	16	**Class I**: Maumbury Rings (excavated), Arminghall, Woodhenge, Stonehenge I, Gorsey Bigbury, Mayburgh **Class II**: Durrington Walls, Arbor Low, King Arthurs Round Table, Thornborough, 'Ripon Moor', Knowlton circles, Mount Pleasant, Eggardon
Atkinson (**1951**)	**No re-definition attempted**. Used **features common** to the majority of sites: - Near circular ditch within a bank, broken by a single or two opposed entrances - *may* include internal stone or timber settings. ***Excludes:*** *freestanding stone and timber circles, and unbroken circular earthworks, and sites similar to henge monuments that have a middle BA date or later.*	**Class I** – single entrance **Class II** – double opposed entrances **Class IIa** – double opposed entrances, double ditched with central bank/berm	38 (5 uncertain)	**Class I**: Overhowden, Mayburgh (No ditch/4 stones), Castle Dykes, Arminghall (partial/post settings), Stratford Hills, Dorchester I (complete/ring of pits), Dorchester IV/V/VI (complete/cremations), Dorchester XI (complete/pit circle), Gorsey Bigbury (complete/none), Woodhenge (central area/timber circles), Stonehenge I (partial/pit circle), Maumbury, Stripple stones (partial/stone circle). **Class II**: Brodgar (stone circle), Stennis (stone circle), Crichie (stone circle, central cist), Ballymeanoch (partial/cists), Cairnpapple (complete/stone circle), Broadlee, Round table (complete/none),Bull Ring (partial/stone circle), Arbor Low (partial/stone circle), Westwell, Devil's Quoits (partial/stone circle), Avebury II (partial/stone circle), Durrington Walls, Fargo Plantation (complete), Knowlton C., Knowlton S., Eggardon **Class IIa:** Thornborough N/C/S, Hutton Moor, Cana, Dorchester Big Rings (partial) **(Doubtful:** Staden Low, Thornhaugh, Budbury, Marden, Mount Pleasant**)**

Tratman (**1967**)	**No Re-definition attempted** Builds upon Clark (1936) and Atkinson (1951). Accepts 'henge' as a convenient archaeological invention. The importance for Tratman is the **bank**, and a **lack of evidence of occupation**. Accepts the role of henges as meeting places for religion or other purposes	**Class I** – single entrance **Class II** – double opposed entrances **Class IIa** – double opposed entrances, double ditched with central bank/berm	17 (additions to Atkinson's list)	**Class I**: Priddy Circles 1 (partial)/2/3/4, Hunter's Lodge, Castlewich, Balfarg, Condicote (partial), Meini-Gwyr (partial), Maxey site 69 (Complete). (**Doubtful class I:** Sutton Veney, Silk Hill) **Class II & IIa:** Coupland, Llandegai SW (B), Rudston, Maxey site 69 (complete) (**Doubtful class II:** Llandegai NE (A))
Wainwright (**1969**)	Henges as part of a **ceremonial circle tradition** Henge: a bank and ditch **(normally internal)**, surrounding a roughly circular area within which **may** be stone or timber settings, pits or burials ***Includes:*** small enclosures which are 'henge-like' and looks at Irish sites	**Class I** – single entrance **Class II** – double opposed entrances **Class IIa** – double opposed entrances, double ditched with central bank/berm) **Henge enclosure –**sites with diameters over 300m in diameter **Henge –** as per the definition, with a diameter between 30-300m **Hengi-form –** possesses henge-like characteristics i.e. internal ditches and one or more entrances, but are of such a small size, that their inclusion in the henge category is uncertain. Diameters less than 100ft	31 (discovered since 1951) in addition to Atkinson's list	**Class I:** *Excavated:* Yarnbury, Llandegai A, Condicote, Priddy Circles 1/2/3/4, Stonehenge, Castilly. *Recorded:* Parracombe Common, Hunters Lodge, Paddock Hill **Class II:** *Excavated:* Nunwick, Llandegai B, Avebury, Durrington Walls, Maidens Grave. *Recorded:* Normangill, Newbigging, Ferrybridge **Class IIa:** *Excavated:* Thornborough circles **Hengi-form:** *Excavated:* City Farm site 4, Maxey 69. *Recorded:* Greeanan, Contin, Dugary, Castlehill (Muir of Ord), Conanbridge, Culbokie, Wormy Hillock, Inverurie, Old Machar (**Doubtful:** Castell Bryn Gwyn, Barford) **Irish Henges:** the Curragh, Raheenanairy 4/5, Bend of the Boyne A/B/C/D/E, Dun Ruadh, Giants Ring, Longstone Rath, Micknanstown, Mullaghteelin **Henge enclosures –** Durrington Walls, Marden, Avebury, Mount Pleasant.
Burl (**1969**)	**No re-definition attempted –** applies Atkinson's understanding of what constitutes a henge**:** Near circular ditch within a bank, broken by a single or two opposed entrances, may include internal stone or timber settings ***Attempts*** to use internal features as diagnostic features to suggest chronological and regional groupings	*Morphological:* **Class I** – single entrance **Class Ia** – Single entrance, double ditched with central bank **Class II** – double opposed entrances **Class IIa** – double opposed entrances, double ditched with central bank/berm *Feature*s: **Distribution**, **Size of Diameter**, **Outliers**, **Portal Stones and Posts**, **Timber Structures**, **Circles of pits**, **central burials**	78 probable (24 uncertain)	Identifies patterns in between *features* and *class* (see also Burl 1969) Then Discusses regional groups: ***South-West England:*** **Class I:** Castilly, Castlewich, Stripple Stones (**Doubtful**: Philleigh (AKA Curdodden), Halgarass) ***Wessex:*** **Class I:** Maumbury Rings, Stonehenge, Woodhenge, Dorchester I/IV/V/VI/XI **Class II**: Fargo Plantation, Knowlton S/N, Avebury, Durrington Walls, Eggardon, Devil's Quoits, Westwell, Marden. (**Doubtful**: Mount Pleasant, Sutton Veney, Tisbury, Silk Hill, Berwick Down, Deadmans Burial) ***Mendips:*** **Class I:** Gorsey Bigbury, Hunters Lodge, Priddy S/CS/CN/N ***Upper Thames Valley and Eastern England:*** **Class I:** Castle Dykes, Condicote, Hanborough, Arminghall, Maxey, Stratford Hills, Yarnbury **Class II:** Cana, Hutton Moor, Knottingley, Nunwick, Rudston, Thornborough N/C/S, Dorchester Big Rings (**Doubtful**: Thornhaugh, Paddock Hill) ***Wales:*** **Class I:** Castle Bucket, Dan y Coed Ffynnon-Brodyr, Meini-Gwyr, Llandegai North (A) **Class II:** Llandegai South (B) (**Doubtful:** Castell Bryn-Gwyn, Bryn Celli Ddu)

		and structures, **Stone Circles**, **Cursuses**, **Orientations** *Morphological and features used to discuss regional groupings* **'Circle-henges'** – for henges with a distinct relationship with stone circles, and so must be considered foreign to the original idea of henges		***The Peak District:*** **Class II:** Arbor Low, Bull Ring (**Doubtful**: Top of Riley, Staden Low) ***Solway Firth:*** **Class I:** Broomrigg, Mayburgh **Class II:** Broadlee, King Arthurs Round Table (**Doubtful:** Little Round Table) ***Central Ireland:*** **Class I:** Bend of the Boyne O, Lios, Lisroughan **Class II:** Bend of the Boyne Q, Longstone Rath (**Doubtful:** Micknanstown, Mullaghteelin, Curragh I/4, Lugg) ***North Channel Coasts:*** **Class I:** Dun Ruadh **Class II:** Giants Ring, Ballymeanoch, Cairnpapple (**Doubtful:** Tomenraw, Shiels Farm) ***Tweed and Biggar:*** **Class I:** Overhowden **Class II:** Coupland, Normangill, Weston (**Doubtful**: Rachan Slack) ***North-east Scotland:*** **Class I:** Huntingtower henges, Balfarg, Stenness, Clashindarroch, Cononbridge, Contin, Culbokie **Class II:** Ring of Brodgar, Muir of Ord, Broomend of Crichie
Catherall (**1971**)	**Does not attempt to redefine** Just to highlight the possibility for reclassification based on chronology and internal features	*Morphological:* **Class I** – single entrance **Class II** – double opposed entrances **Class IIa** – double opposed entrances, double ditched with central bank/berm *Internal features:* **A** - circles of pits **B –** Timber structures **C –** Stone circles **D -** central structures (hybrid) **E –** Central Burials **F –** Portal-stones and Posts	35 sites = Those that have been excavated and have revealed internal features Some sites include phases	**A** – 'Maxey', Llandegai A, Dorchester I, Dorchester XI **B** – Arminghall, Durrington Walls, Hanborough, Marden, Mount Pleasant I, Rudston Henge II **C** – Bull Ring, Contin, Devil's Quoits, Ring of Brodgar, Stonehenge II, Stonehenge III, Stones of Stenness **D** – All Hybrids **E** – Fargo Plantation **F** – Balfarg, Broomrig, Gorsey Bigbury, Lisroughan **A/F** – Maumbury Rings, Stonehenge I **A/C/E** – Broomend of Crichie **B/F** – Priddy South, Woodhenge **C/D** – Avebury, Mount Pleasant II, Stripple Stones **C/D/E** – Cairnpapple II-IV, Dun Ruadh **C/E** – Arbor Low **C/F** – Lios, Meini-Gwyr **D/E** – Ballymeanoch, Giants Ring, Longstone Rath **D/F** – Mayburgh **E/F** – King Arthurs Round Table
Clare (**1986**)	**Dismisses** the chronological criteria of Atkinson's definition, arguing that sites can have multi-period longevity. **Dismisses** that internal uprights are a defining character. Clare's definition of henges focuses on the perimeter.	**Classification based upon:** - *The nature of the perimeter* **Ring ditch** **Ring bank** **Henge -** bank and ditch **Unenclosed** **Ring ditch/bank/henge A -** concentric perimeters - *Number of entrances* **An** – annular (no entrance) **O** – ditch with gap and bank without or vice versa **I** – one entrance	c. 312 (listed in appendixes)	***The paper only lists selected sites for discussion (see*** *Figure 3* ***for a reproduction of Clare's completed tables)*** **Subtype B** *Henges:* Dorchester IV, V, VI (although should possibly be classed as ring ditches), Catfoss, Knighton Heath, Standlake I | *Ring Banks*: Whitestanes| *Unenclosed*: (possibly) Nith Lodge **Subtype C** *Henge:* Dorchester II (phase III) **Subtype D** *Henges*: Dorchester XI (phase II), Llandewi, Stonehenge I |*Ring Ditches*: Easter Cadder, Rudston Beacon |*Unenclosed:* Bannockburn, Barford B, Brougham, Tanat **Subtype E** *Henges*: Barford A (I), Dorchester I | *Ring Ditches*: Akeldsteads, Whitton Hill I, Whitton Hill II | *Unenclosed*: Cairnpapple (I), Welshpool

		II – two entrances **III** – three entrances, in one segment only **IV** – four opposed entrances **V** – crescentic or semi-circular temenos **U** – uncertain - *Range of features (internal or external)* **A** = unknown **B** = numerous primary cremations in pits **C** = as B, with central feature **D** = pit circle or crescent **E** = as D, with central feature **F** = circle of uprights **G** = as F, with central feature **H** = central feature only **I** = features both inside and out **J** = features outside only **k** = irregular features or settlement **L** = no known features		**Subtype F** *Henges*: Arminghall, Balfarg, Bow, Bryn Gwyn, Cong, Dun Ruadh (II), Moncreife (i), North Mains I (I), Woodhenge (*possibly* Stonehenge and Top of Riley) |*Ring ditches*: Hampton Lucy, Marleyknowe, Ring of Brodgar | *Ring Banks*: Auchquhorties, Boleycarrigeen, Hampton, Lissyviggeen, Masonbrook | *Unenclosed*: Brenig 42, Catholme 203, Craighead, Girdlestanes, North Mains 2 (I), Overton Down (I), Sunbrick **Subtype G** *Henges:* Arbor Low, Avebury, Bleasdale, Broomend of Critchie, cairnpapple (II), Devil's Quoits, Reanascreena, Stenness, Stonehenge (II? And III), Stripple stones | *Ring Ditches:* Bryn Celli Ddu, Poole | *Ring Banks:* Brenig 45, Croft Moraig (III), Danby Rigg, Mayburgh | *Unenclosed:* Arreton Down B (I), Balbirnie (I), Brenig 40 (I), Brenig 41 (I), Catholme, Gunnerkeld, Keswick, Letterston I, Letterston II, Loanhead of Daviot, Overton Down (final phase), Newbarn, Swinside, Tallington 16 (II) (*possibly* Long Meg) **Subtype H** *Henges:* Aldwincle, Ardersier, Balfarg Riding School I, Ballymeanoch, Barton Hill, Cairnpapple (III), Coupland, Curragh 1,4,6, Dorchester Big Rings, Dun Ruadh (III), Durrington Walls, Eggardon, Ewart park (?), Fargo, Greeanan, Halgarras, Hanborough 4, Hunter's Lodge, King Arthur's Round Table, Longstone Rath, Lugg, Marden, Maxey 62, Monknewton, Mount Pleasant, Paddock Hill, Rudston, Waulud's Bank, Appleby 1819, Barford D (II), Barton III, Caerloggas, Cassington 1264, Ffridd Newydd S, Fourknocks II, Fullerton, Hanborough 3,5, Howick Heugh, Kilnavert I, II, Kingston Russel, Litton Cheney, Maes Howe, Middleton, Newmill, Watch Hill, West Heath VII, Ysceifiog | *Ring Ditches:* East Marley, Linch Hill, Maxey 69, Millfield S, Mucking, Arreton Down b (II), Boxted, Chaldon Down, Crig a Mennis, Duggleby Howe, Fall Hill 55, Fornham All Saints, Frilford, Handley, High Knowles, Lechlade, Moneen, Muir, Newnham Murren, North Stoke, Playden, Radley 15, Streatley, Sturmer, West Heath III, Wetwang Slack | *Ring Banks:* Ballynahatty, Lios, Balfarg Riding School 2 (II), Blackheath, Brenig 42 (II), Carnkenny (II), Caperby, Carviak, Cocksbarrow, Fall Hill 168, Graig Fawr, Hardendale, Higher Draynes, Leven's Park, North Mains 2, Park Knowe, Pennle'rbebyll, Penmaenmawr 277, Totley, Trenance downs, Weird Low, Wet Withers | *Unenclosed:* Canonhill, Kimpton, Kintraw A, Longstone, Meldon Bridge **Subtype I** *Henges:* Barford A (II), Llandegai B, Milfield North, North Mains I (II) (*possibly* Llandegai A) | *Ring Banks:* Brenig 44, Forteviot, Millin Bay, Tortant **Subtype J** *Henges:* Alnham 3, Newton kyme, Yeavering | *Ring Ditches:* Llandegai F, Marlefield, Standlake 20 | *Ring Banks:* Culcharron, Letterston III, Meini Gwyr **Subtype K** *Henges:* Castel Bryn Gwyn | *Ring Ditches:* Fengate | *Ring Banks:* Castle Bucket, Dan Y Coed, Woodhead **Subtype L** *Henges:* Balfarg Riding School 2 (I), barford A, Cassington 3345,3341,1340 (*possibly* Castilly, Condicote, Dorchester II (I and II), Dorchester XI (I), Gorsey Bigbury, Priddy 4) | *Ring Banks:* Penmaenmawr 278
Harding and Lee (**1987**)	**Adopts Atkinson's Definition:** Near circular ditch within a bank, broken by a single or two opposed entrances, may include internal stone or timber settings	**Classic henge:** As Atkinson defined = a circular area surrounded by a bank and internal ditch and entered by 1 or more causeways. **Mini-henge:** Small sites with henge-like features (*Instead of hengi-form*) **Henge-enclosure:** the term given to the four extremely	324 sites from aerial photography	**Henge-enclosure**: Avebury, Durrington Walls, Marden, Mount Pleasant **Classic henge** (*excavated*): King Arthurs Round Table, Bull Ring, Maiden's Grave, Millfield N, Big Rings, Gorsey Bigbury, Stonehenge, Llandegai A, Balfarg, Cairnpapple, Ballymeanoch, Arbor Low, Wyke Down, Arminghall, Yeavering, Devil's Quoits, Coneybury, Woodhenge, Llandegai B, Broomend, Stenness, North Mains **Classic henge** (*Slightly or unexcavated*): Stripple Stones, Bow, Knowlton S, Coupland, Millfield S, Cana Barn, Newton Kyme, Thornborough N, Thornborough S, Broadlea, Mayburgh, Knowlton C, Maumbury Rings, Ewart Park, West Alkedsteads, Hutton Moor, Nunwick, Thornborough Centre, Ferrybridge, Ring of Brodgar **Possible/probable henge:**

		large Wessex sites. Separated due to their distinct size difference and their location in a distinct geographical location		Castilly, Round Hill, Eggardon, Knowlton N, Little Bentley, Little Bromley, Condicote, Paddock Hill, Owmby, West Ashby, Flodden, Westwell, Figsbury Rings, Sutton Veney, Ffynnon-Newydd, Dyffryn Lane, Balfarg Riding School, Normangill, Weston (Newbigging), Belhie 303, Berthapark, Coldrochie, Forteviot site 2, Forteviot site 4, **Mini-henge/possible mini-henge:** Maxey site 69 (I), Maxey site 69 (ii), High Knowles, Whitton Hill 1, City Farm site 4, Clanfield, Corporation Farm, Deadman's Burial 2, Dorchester V, Dorchester Bypass site 1, Northfield Farm, Hunter's Lodge, Catholme site 2, Fargo Plantation, Llandegai E, Glan Mule, Wormy Hillock, Cononbridge, Migdale, Easter Cadder, Belhie 302, Belhie 304, Forteviot site 4a, Moncrieffe, **Possible hengiform:** Yarbury, Llanrhaeadr, **Henge-related:** Bury Farm, Barnack 011, Maxey structures 14 & 15, Maxey, Thornhaugh, Little Round Table, Fornham All Saints 176, **Cannot be ruled out as henge-related:** Barnack (007,009), Elton, Melbourn, Thornaby Green, Twyford, Parracombe Common, Lanceborough (Winterbourne Monkton), Boxted, Fobbing, Great Bentley, Great Wigborough, Hare Green (Great Bromley), Tye Field, Wrabness Hall, Cutsdean, Weston (Hertfordshire), Grindale, Walkington, West Deeping, Northwold, Easton on the Hill 117, Easton on the Hill 118, Bebside, Great Haugh 125, Great Haugh 125a, Barton in Fabis, Elmsley Lodge, Cotton, Ewarton, Fornham All Saints 174 & 175, Kersey, Red Hill, Beechingstoke, Everleigh, Wilsford, Castle Dykes, Hunmanby, Castell Bryn-Gwyn, Blaen Hepste, Carnau Gwynion, Twyn y Post, Overhowden, Rachan Hill, Rossie Drain, Fullerton, Hill of Tuack, Kintoche, Middleton, Achilty, Ascoile, Brackley, Lonnie, Nipster, Tarradale House, Newlands, Bizzyberry Hill, Craigie Burn, Windy Gate, Balneaves Cottages, Huntingtower, Newton of Boysack, Smiddyhill, Westside, **Sites previously considered henges now proven not to be:** Budbury, Eaton, Hampton Lucy, Mucking South Rings, Romford, St Osyth, Springfield, Stratford Hills, Sturmer, Castle Bucket, Dan y Coed, Letterson III, Meini-Gwyr, Yr Allor, Shiels Farm.
Burl (1991)	**Does not redefine henges** 'Roughly circular earthworks with a bank surrounding an inner ditch and broken by one or more entrances' Acknowledges variety and atypical examples	*Classes of henge:* **I –**single entrances, single ditch **II –** two entrances, sing ditch *Sub-classes:* **IA –** two ditches, single entrance **IIA –** two ditches, two entrances **IB –** single external ditch, single entrance **IIB –** single external ditch, two entrances **IC –** no ditch, single entrance **IIC –** no ditch, two entrances	Uses examples, not an exhaustive list	I - Wormy Hillock II – Devil's Quoits, King Arthurs Round Table IA – *eastern Britain* – Arminghall, Condicote IIA – *eastern Britain* – Dorchester Big Rings, Hutton Moor IB – *very rare* – Llandegai North, Priddy circles IIB – *very rare* – Longstone Rath, Stonehenge IC – *Western Britain, Ireland* - Mayburgh, Meini-Gwyr IIC – *Western Britain, Ireland*
Harding (**2003**)	**Does not redefine henges.** Comments on previous attempts at understanding.	*Chronological:* **Formative henge:** early henges with atypical	Uses examples, not an	**Formative –** Stonehenge I, Llandegai A, **Mini henge -** Whitton Hill 1, Dorchester 2, IV, V, VI

	Classification made through trying to understand the atypical henges	characteristics – a circular shape with one or two entrances but have segmented ditches or lack an external bank. Transitional enclosures. **Classic henge:** circular enclosure with a bank, internal ditch and usually one or two entrances	exhaustive list	**Classic –** Stones of Stenness, Arbor Low, Ring of Brodgar, **Henge enclosures** – Durrington Walls, Mount Pleasant, Marden, Avebury

2.2 History of Classification

In his site report on the excavation at Arminghall, Grahame Clark compared the site to other monuments similar in form which led to the first list and distribution map of henge sites (Clarke 1936). Within this publication is the first definition of the monument class using Kendrick's (1932) term 'henge':

> *'a well-known class, possessing certain easily defined features…stone or timber uprights…the central area is defined by a bank, and, where the material for this can easily be quarried from the ground, by a ditch; as a general rule the ditch is placed within the bank…access to the central area is given by a single or often two entrances'* (Clark 1936: 23).

Clark adopts Kendrick's cautious use of the term by using the word within inverted commas. He includes sites he calls probable 'henges' and acknowledges the variation possible and probable within this class although his original description of the class states that all would enclose stone or timber uprights (*ibid*). He comments on the variation in ditch form, profile of the banks and external variations at Stonehenge (Clark 1936: 25); in doing so the definition is already loosened (Gibson 2012b: 2). Although vague, Clark does highlight that the internal ditch is not defensive and, therefore, proposes a ceremonial role to the class of monument, further supported by the large amount of labour effort and skill required to construct them 'for which no directly useful purpose can be adduced' (1936: 26).

The Piggotts published a survey of 'stone and earth' circles in Dorset in 1939 and made a distinction between those sites with free-standing stones and those with earthworks. They made this distinction arguing that earthworks and standing stones were never combined in Dorset and the earth circles which they discussed were termed henges (1939: 139-140). The Piggotts drew on Kendrick's description of henges and commented on the two distinct types they identified: those with a single entrance such as Maumbury rings and Woodhenge; and those with two entrances opposed diametrically such as Arbor Low and Durrington Walls (Piggott and Piggott 1939: 140). Both sub-categories have the shared characteristics of a bank with internal ditch and can enclose settings of stone and timber (*ibid*). This was the first attempt at classifying henge monuments within the site-type as well as placing the number of entrances at the heart of a scheme; they built upon Alexander Keiller's observation that henges with a single entrance appeared to be in the north-east of the site, whilst double entranced henges had a northwest-southeast alignment of entrances (Piggott and Piggott

1939: 140). However, even with this small attempt at sub-classification the Piggotts noted difficulty in placing sites within each group if entrance alignments differed (*ibid*: 140-141).

The excavation of several of the Dorchester sites provided Atkinson with a new source of henge-like monuments with which to address the henge classification, including an entire chapter devoted to the reconsideration of henge monuments within the published excavation report (Atkinson 1951; Atkinson *et al.* 1951). Atkinson adopted the two sub-classes as devised by the Piggotts but rejected continuous ring ditches and standing stone or timber circles (Atkinson *et al.* 1951). This publication argued against the use of a strict 'henge' definition, as it could only be applied to those sites which exhibit or exhibited a hanging structure due to the etymology of the term; however, he deemed its use as an 'umbrella' term adequate (Atkinson 1951: 81, Watson 2000: 9). The defining features in this publication were an external bank, with an internal ditch (formed by quarrying material for the bank, although only where the material allowed the constructors to do so) and one or two entrances. Atkinson listed 36 sites which could be counted as henges within his definition (Atkinson *et al*. 1951: 94-5). Alongside the Piggotts' Class I and Class II, Atkinson added Class IIa, defined as henges with double entrances and double ditches with a central bank (see *Figure 1*). There was no corresponding sub-class added to Class I to describe single entrance henges with a double ditch and central bank layout, despite such sites existing: Arminghall, for example (Gibson 2012b: 3). With this classification, fifteen sites belonged to Class I, seventeen to Class II and 6 to the new class IIa, with the Class IIa sites almost exclusively found in Yorkshire (Atkinson 1951).

Figure 1: Schematic representation of Atkinson's Classification: class I, class II and Class IIa, respectively (Grey shows the position of the bank, the black represents the ditch)

Using statistical analysis Atkinson discovered patterns within his groups of classes relating to size and orientation. He noted that Class II and IIa were found across the entire size range, Class I tended to have a diameter below 400ft (over 120m) (Atkinson *et al.* 1951: 87). He further suggested that whilst Class II and IIa henges had no common orientation beyond having a tendency towards a NW-S axis, Class I henges avoided the SW-SE. From his investigation into henge monuments he suggested that Class I henges were earlier in date than Class II; he based this view upon the collection of middle Neolithic and Grooved Ware pottery associated with the excavated class I sites, whilst class II sites tended to have Beaker and Bronze Age artefact associations. He argued that class II and IIa are quite uniform in size and tend to be more of an oval shape in comparison to class I which appeared regularly more circular (1951: 84-85). Avebury and Durrington Walls with their diameters measuring over 600ft do not follow the smooth curve of an oval or circle when compared with the other sites; Atkinson, however, attributed this to the increased margin of error that arises when considering measurement and layout over a large area (Atkinson 1951: 86-87). Atkinson's study highlighted clear differences between the two classes of henge monuments and so gave validity to Piggott's dual classification originally suggested on morphological grounds only (1951: 91). However, a significant problem with the classification of henges in this simple class system is that it ignores some variety in layout, for example Avebury was considered a Class II monument despite having four entrances (Gibson 2012b: 4).

In reply to Atkinson's work on henges, Clark (1954) suggested that the term 'henge' was being misused to include sites which did not fall within the original definition. He argued that this was in order to include the newly discovered Dorchester sites which would not fit into

the strict definition he had originally presented (Clark 1954: 92). The original term was applied to a 'class or family of analogous monuments' and has persisted because it characterised 'in a word a well-defined category of monument' (1954: 91). Clark suggested that although he acknowledged that the term 'henge' could only be etymologically applied to Stonehenge, if all were agreed on what implications were meant by using the term then its origin was irrelevant (1954: 91). He reiterated his definition of a henge monument as a site which contained key characteristics (*ibid*):

1. A central area, more or less circular, supporting timber or stone uprights;
2. A bank, and where this was created by excavation for material, a ditch, 'which was normally, though not invariably, inside the bank; and,
3. One or two entrances through the bank (and ditch) giving access into the central area.

Despite Clark's opinion that a strict approach to this definition should be maintained in order to retain a sense of meaning and usefulness, the course of henge studies continued to change and the attempt to further categorise and define sites with similarities continued.

E.K. Tratman (1967) published his work at the Priddy circles with a discussion of class I henges. The Priddy circles fell into both Piggott and Piggott (1939) and Atkinson's (1951) class I, due to the presence of single entrances. However, Tratman highlights the external ditches, which are analogous to Stonehenge I, suggesting the ditch was just to quarry the materials needed to construct the bank (1967: 111). He reviews the literature and concludes that the term 'henge' is convenient to describe this type of monument, and assumes they served as meeting places for religious or other purposes based upon the lack of occupational debris (Tratman 1967: 112). Tratman highlights the emerging pattern that most henge sites appear to be unique from one another though sharing enough significant similarities to be considered as part of the same monument type (1967: 112). He also appends a list of further henge monuments discovered or published since Atkinson (1951), adding an additional 17 sites which include the Priddy circles with their interior banks, and sites such as Meini-Gwyr which he lists as having no ditch (Tratman 1967; *Table 1*). Tratman also comments on the possibility of some sites that are known to have causeways across their circular earthwork as possibly belonging to the henge class, but highlights that without excavation they should not be included as they could also belong firmly in the barrow group, due to the similarity in

ground plan of many barrows and henge sites – only excavation would reveal formal burials as an original use for the site and the remains of an interior mound (Tratman 1967: 113).

Wainwright (1969) undertook a review of henge monument typology following the excavations of Durrington Walls, and the increasing use of aerial photography. Wainwright drew on Atkinson's class system but suggested the inclusion of sites with small diameters (less than 100ft/30m) was problematic and should therefore be 'uncertain' (1969: 118). He introduced the term '*hengi-form'* for sites which had henge characteristics, such as an internal ditch and one or more entrances, but had a diameter of less than 100 feet (c.30m). Using dating evidence from two such earthworks (City Farm and Fargo Plantation) he suggested that they appear in the henge tradition quite late (Wainwright 1969: 118). A hengiform then became another extension to the classes of henge monument, defined as a site which is small in diameter and shares the architectural features of the 'henge', but which Wainwright did not consider to be equal to the classic henges of Wessex (1969). Wainwright divided his data set into three categories based upon size ranges: 'henge enclosures' (with a diameter in excess of 300m), 'henges' (with a diameter between 300-30m) and 'hengiforms' (with a diameter of less than 30m/100ft) (Wainwright 1969: 122-133; Catherall 1976). Whilst listing the large 'henge enclosures' of Durrington Walls, Avebury, Marden and Mount Pleasant by their henge classification, he also noted within the text that they can be isolated from the other henge sites (Wainwright 1969: 118). With this review he added a further 31 sites to Atkinson's list, and included upland variants of circular sites such as enclosed cremation cemeteries (he discusses Fargo Plantation and Dorchester sites IV, V and VI) which he classed as 'hengi-forms', and so the scope of variety within this monument class became even more vast and confused (Wainwright 1969: 118). Wainwright effectively widened the range of sites for which the term henge could be applied to. His study suggested that any circular or oval earthwork from the Neolithic or Bronze Age periods could be labelled as a henge, moving further away from the original definition.

Burl's 1969 paper, published in the same year as Wainwright's review, took a different approach and was focused on the grouping of known henge monuments based upon chronology and regional locations. This was an ambitious project which attempted to divide sites based upon their 'class', regional position, groupings, and analysis of internal features (1969: 1-3). Burl's work stemmed from Atkinson's (1951) study of Dorchester which, in turn,

had accepted Piggott's (1939) two-class system based upon the number of entrances. Burl admits that whilst adding new sites to those already listed by Atkinson, he applied Atkinson's criteria of a roughly circular bank with one or more entrances, although he included sites which were of Early Bronze Age date which Atkinson had previously discounted because of their later date (Burl 1969: 3). However, he disregards Clark's (1936; 1954) assertion that internal structures of timber and stone are essential features (Burl 1969: 3). He rightly considers this to be limiting and dismissive of those sites lacking in internal features, and an 'attractive but misleading' assumption (*ibid*). Furthermore, his work on stone circles and the number of such sites which survive with no evidence of a surrounding ditch suggests that these sites stood on their own significance, although they are clearly linked in some cases. It is interesting to note that if Clark's original criteria had been retained, then only 19 out of the 78 monuments Burl considered would have been classed as henges (Burl 1969: 3). Burl introduces the sub-class 'Ia' to represent sites with a single entrance but with two concentric ditches (1969: 4). The following figure (*Figure 2*) shows Burl's findings relating to morphology and regionality within the henge category.

Within this paper, Burl suggests the term 'circle-henge' for those sites which enclose a timber or stone circle. Only a small percentage of sites (17%) in his study have such a definitive relationship with such settings (Burl 1969: 8). In adopting this category, he rejects the assumptions of previous studies (see Clark 1936; Piggott and Piggott 1939; Atkinson 1951) and argues that stone and timber structures should not be considered as *integral* to henge architecture (Burl 1969: 9). This is a significant move away from Clark's (1936) early definition as it regards such ditches with banks and stone or timber circles as separate episodes, without devaluing their relationship or the significance of any element.

Burl's attempt, although trying to counter the assumptions made in earlier classification models, still failed to successfully argue for a clear pattern, both architecturally and geographically. He noted that even within small sub-groups, there exists a huge variation (1969: 11).

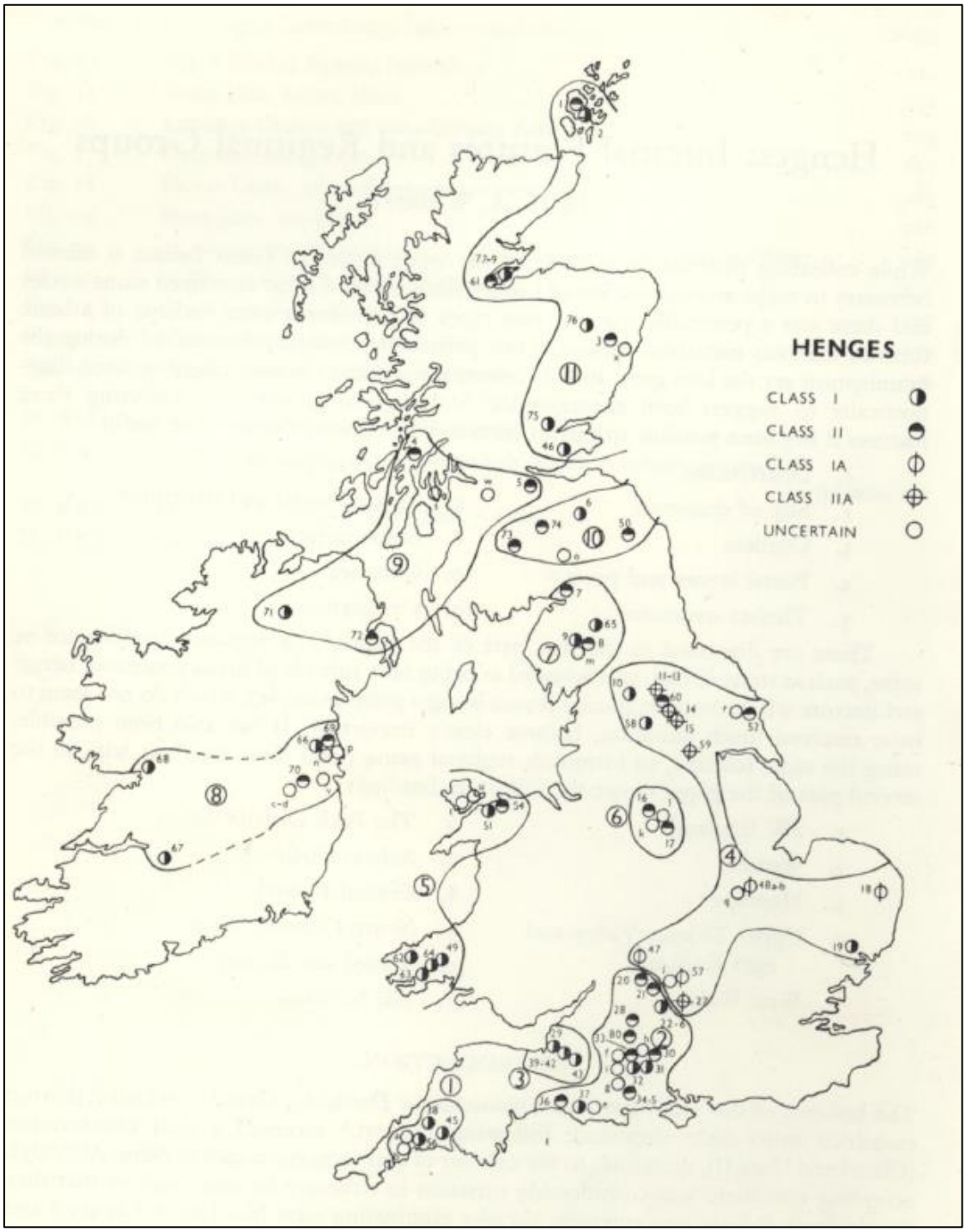


Figure 2: Map showing Burl's attempt at classifying henges by architecture, internal structures and regional groups (Burl 1969: figure 1)

Burl also analysed his collection of henges based on size; he attempted to sort henges by diameter, hoping to see a pattern of uniformity within regional groups. This attempt, however, only served to highlight the *lack* of uniformity in regard to diameter (1969: 5). Burl, therefore, conceded that there was no set pattern and that the size of a henge would ultimately depend on the size of the local population and how easy the subsoil was to quarry (*ibid*). Burl does, however, note that when sites are close together, they tend to be similar in

size (see the Thornborough complex, for example), though this is likely to suggest a similar chronological scale for the creation of sites so close together (*ibid*). This is an interesting observation but can only be judged at sites where there are probable contemporary monuments which are still extant and, therefore, directly comparable – it is possible that ditch cuts could have been refilled due to the immediate collapse of the bank/ditch dependent on soil types meaning that the site would soon become a faint trace in the landscape. Judgement of community size within a region based upon the size and scale of excavation required to create a henge is problematic and must be treated carefully. Burl adds that the juxtaposition of Woodhenge and Durrington Walls, two sites geographically very close but differing hugely in size, highlight the issues in associating size with local population and regional grouping (1969: 5).

Catherall (1971) takes a similar approach to Burl (1969) in focusing on internal features as a means of classification. This limited the number of sites included for re-classification to those which had been excavated and revealed internal features. Catherall groups this select collection of sites under headings based on the types of internal structure, which include: circle of pits; timber structures; stone circles; central structures; central burials, and portal stones/posts (1971: 147). This attempt also produced several sites which had more than one internal feature and so a number of hybrid groupings are highlighted (*ibid*: 148). Catherall then applies Atkinson's classification of Class I, Class II and Class IIa as it is suggested that his classification has some chronological significance. Comparing both classification attempts, suggests a general pattern relating the number of entrances and internal features to the general chronology of henge use (Catherall 1971: 148-149). It is clear, however, that Catherall acknowledges the problems and 'many faults' of this classification but suggests that the focus on excavated sites is a 'step in the right direction' (1971: 153). This is to counteract the problematic use of unexcavated sites where the fieldwork cannot detect features within the interior and finds which may highlight the chronology or function of individual sites. Specifically, this approach does at least attempt to focus on sites for which excavated reports were available. Catherall later discussed Wainwright's (1969) division between henge monuments and those he termed hengiforms, suggesting that the figure of 100ft (c. 30m) does not provide a convincing distinction between some sites (Catherall 1976: 1). Comparing the diameters, Catherall suggests that a measurement of c. 110m creates a more meaningful and convincing distinction (1976: 1). This, however, prompts the question

of whether creating these distinctions has any specific value other than to emphasise the difference in size between sites such as Maxey and Durrington Walls (*ibid*). Further discussion of the presence and importance of ditches and banks and the range of variations of internal features, leads Catherall to suggest that although retaining the henge monument classifications is useful (as long as the limitations of the terminology are acknowledged), it may be possible to distinguish between sites within the henge typology, resulting in more strictly defined classification based upon function (1976: 6). This approach suffered from issues of chronological resolution between internal features and could only include sites which had been sufficiently excavated (Watson 2000: 10). Many sites were partially excavated and even some of the large examples which are the focus of many publications remain largely undisturbed, which will influence the interpretation that can be drawn out from this classification attempt.

It is clear from the above summary that from the 1930s onwards the approach to classification and definition has been an ongoing discussion; one which would always be problematic. The main aim of most papers published between 1936 and 1971 was to classify this monument type and the discussion of the origins and development of the sites within it. At this point it is perhaps worthwhile pointing out an example of how this developing classification system, alongside the dearth of detailed recordings, could lead to significant confusion: 'When is a henge not a henge?' was asked by Martin in 1982. In this short article, he questions the description and classification of the Stratford Hills monument which was classed as a Class I henge by Atkinson in 1951. The site's poor survival and contradicting archaeological records, which all provided very different measurements (Martin 1982: 141), created misunderstanding and confusion about its function and classification. The small diameter and internal features are not only similar to that of henge or hengiform features but can also be compared to medieval mill-mounds (*ibid*). It is ultimately through its association with other nearby Neolithic features, namely a cursus, that Martin concludes that it should be included within the henge or hengiform class (1982: 142).

Tom Clare, in two papers published in 1986 and 1987, attempted to redefine the existing classification and the use of the current terminology. In these papers he criticised the strict chronological criteria adopted by Atkinson to define the class of monument, arguing that sites can often have multi-period longevity (1986: 281).

'We are not dealing with a clear-cut monument type but a permutation of practices and features…' (Clare 1986: 282)

Clare dismissed the idea that internal uprights should be a defining characteristic of henge monuments, instead moving to focus on the perimeter (1986: 282). He argues that there is no clear distinction between sites labelled henge and sites labelled hengiform (*ibid*: 283) and highlights that earthwork perimeters may be added to an existing site. Clare's attempt considered a large number of similar sites and investigated a large range of variables in an attempt to organise the classification of the henge class; he reconsidered the classification of henge monuments based upon:

- The nature of the perimeter;
- The number of entrances; and,
- Range of features within/concentric to the perimeter (Clare 1986: 281).

This paper was based on a previous analysis of 750 sites undertaken by Clare in 1973 which suggested henges share close links with other monuments such as stone circles and passage graves and are part of a spectrum of sites which exhibit links with both early and later monuments in Britain and Europe (Clare 1986: 281). By classifying sites based upon their perimeter and not the internal features, unexcavated sites can be included and, therefore, Clare thought the exclusion of sites such as 'ring-ditches', due to lack of an obvious entrance and internal features, was problematic (1986: 282). The perimeter was broken down into 'bank only', 'ditch only', 'bank and ditch' and 'unenclosed' with the term henge being retained only for sites with a bank and ditch (Clare 1986: 282, *Figure 1*). Through this analysis Clare concluded that there was no clear distinction between sites which had previously been labelled as henges, and those labelled as hengiform (1986: 283) (*Figure 3*).

Although an ambitious and well-thought-out attempt to re-order the chaos created by constant reclassification reviews (Gibson 2012b: 6), it was not accepted by Barclay who critically reviewed it in 1989. The title of his paper itself highlights immediately his view on Clare's reappraisal of henges: '*henge monuments: reappraisal or reductionism?'.* It is made clear from the outset that Barclay sees Clare's approach as an oversimplification and, moreover, one which is detrimental to the study of such a large number of Neolithic sites. Although Clare used a large body of data and included other ceremonial sites of the period, there are weaknesses in doing so.

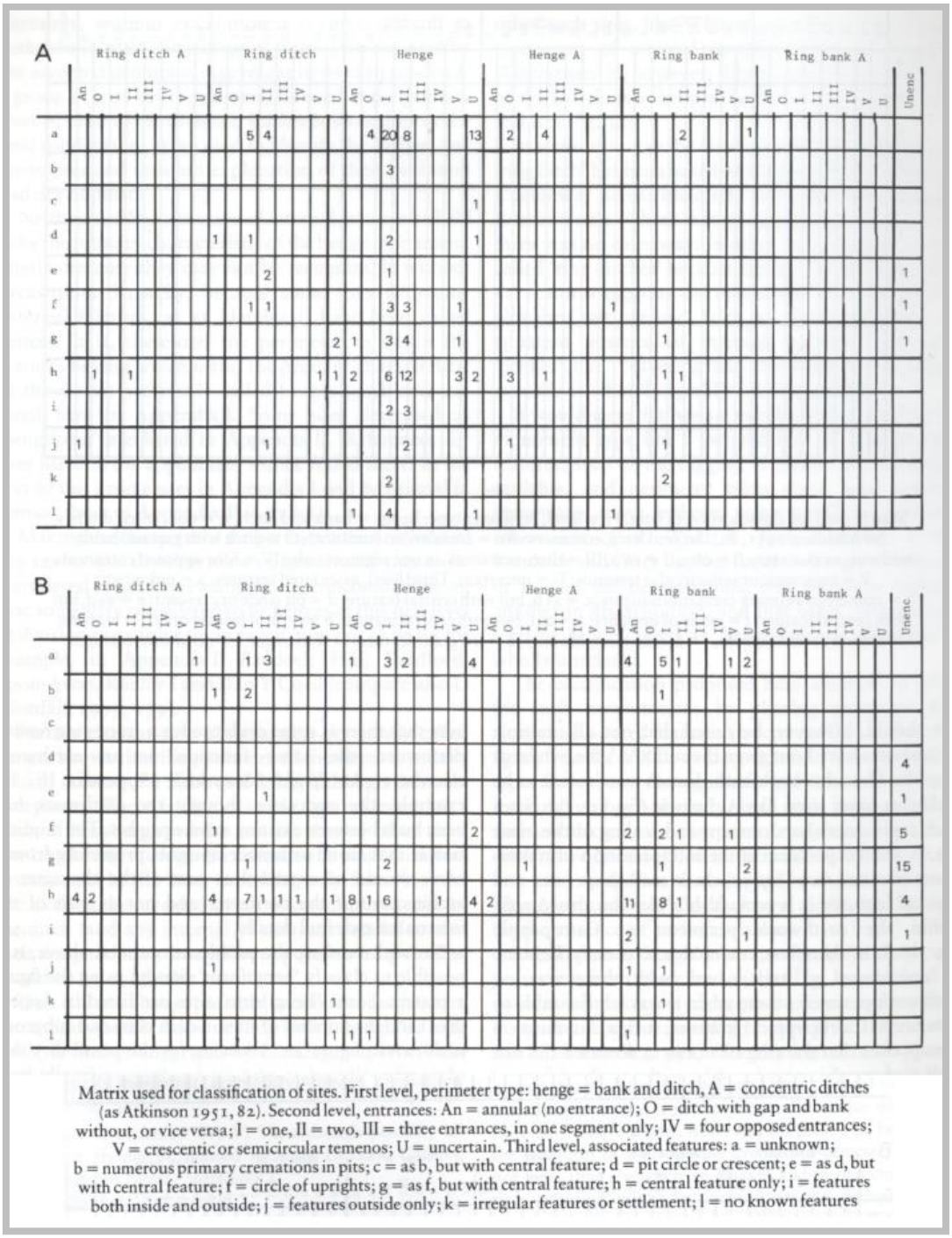


Figure 3: Chart resulting from Clare's classification attempt. A: sites previously listed as Henge monuments. B: hengiforms (after Clare 1986: fig 1, fig 2).

Barclay argues that the large and complex dataset was generalised in order to create a strictly defined classification (1989: 261). He argues that fitting such a large number of sites into two groups (of henge or hengiform) is an over-simplification of the large variety which can be observed (1989: 261). Barclay argues for a stricter definition in order to stop detail being reduced to fit sites into subcategories and suggests Piggott's first categorisation based on number of entrances is still the most useful (Barclay 1989: 260). Barclay's argument for a

strict definition strives to prevent sites being reclassified and moved around based on simple similarities. As a result of Clare's approach, sites which Barclay considers likely to be related - such as Cairnpapple and North Mains - would be broken into different subcategories (Barclay 1989: 261). Barclay acknowledges the complex relationships that many Neolithic and Early Bronze Age sites had with each other but suggests that they should not be considered as the same monument type through the 'dilution of the value of useful site categories such as henge, ring ditch, ring cairn' (1989: 261).

Many circular sites have been identified through aerial photography during the 1970s and a large number of henge sites had been extensively excavated. As a result of this increase in the available data, Anthony Harding and Graham Lee published a pictorial catalogue of sites previously unknown, added to those already acknowledged in Britain (1987). This publication critically analysed aerial photography and produced a descriptive catalogue alongside the numerous images of known sites. As a result of aerial photographic investigation, it became clear that henge sites were much more common than previously known, and many closely associated with other cropmark features (Harding and Lee 1987: i). The aim of Harding and Lee's publication was to deal with the increasing number of sites and to appreciate them with their surrounding contemporary landscape, interpreting and mapping this information (Harding and Lee 1987: 4, 6). A further 'over-optimistic' aim of this study was to achieve a definition of the term 'henge' that would be practical (Harding and Lee 1987: 4).

Harding and Lee adopted Atkinson's definition and adhered to it strictly, thereby reducing the number of sites listed under the term 'henge'. They argue that the issues with classification stem from the tendency to broaden the definition to include ever increasing numbers of similar sites (Harding and Lee 1987: 12), highlighting that interpretation based solely on morphology can be misleading (Harding and Lee 1987: 11). Burl (1969), Wainwright (1969) and Tratman (1967) increased Atkinson's definitive list to a point where the only common feature that could be assumed was a penannular ditch (Harding and Lee 1987: 11). This is questionable and some sites were soon dismissed following investigations, highlighting the issue of a superficial common factor. Due to the limited number of sites which had been excavated to a large scale, knowledge of the form and date of these sites is problematic, however it was hoped that aerial photography evidence provided information

about their ‘extensive’ nature from which to draw out information (Harding and Lee 1987: 12). This aerial photography study encountered interpretive problems, similar to those encountered now when searching NMR databases for henge monuments. The circular form of a henge with one or two entrances is a form which can be recognised in settlement and defensive enclosures throughout many periods. It is, therefore, plausible that un-investigated possible henges could also be hut-circles, Roman signal stations, post-mills, and circular earthworks of unknown date (Harding and Lee 1987: 12-30).

Harding and Lee introduced the term henge-enclosure for the large Wessex sites (Avebury, Durrington Walls, Marden and Mount Pleasant), (1987: 31). They termed small sites with henge-like features as ‘mini-henges’ but avoid using ‘hengiform’ though they do recognise related circular forms. This resulted in three sub-classification groups: mini-, classic- and super-, relating to size. The distribution of classic henge sites did not suggest regional patterning and so it was suggested that monument siting was based upon factors of local terrain and environment (Harding and Lee 1987: 31). It was highlighted that the general low-lying position of these sites meant that there was usually proximity to a river/rivers (Harding and Lee 1987: 31-34). 90% of classic henges have internal ditches and although this was an original defining characteristic, they note that to exclude sites without an internal ditch would be to exclude Stonehenge I and Mayburgh (Harding and Lee 1987: 41). This study highlighted that whilst 70% of class I henges have internal ditches, 100% of class II sites for which there is information, have an internal ditch present (Harding and Lee 1987).

The authors discuss these sites in detail, noting orientations, dimensions, topographic location, and position in relation to monument clusters, even exploring pre-henge evidence of site use. This attempt to understand this monument type was thorough and attempted to follow a strict ruling of classification, whilst acknowledging variety and patterns in the evidence to validate the morphological classification.

Henge clusters which were recognised included (Harding and Lee 1987: 44):

1. The Penrith henges (King Arthurs Round Table, Little Round Table, Mayburgh)
2. Knowlton (North, Centre and South)
3. Milfield (Coupland, Ewart Park, Milfield North, Milfield South, West Akeldsteads, Yeavering, East Marleyknowe)

4. Stonehenge (Stonehenge, Coneybury, Woodhenge, Durrington Walls, Fargo Plantation)
5. Thornborough (north, south, centre, and Cana Barn, Hutton Moor, Nunwick)
6. Llandegai (A, B, E)
7. Forteviot (2, 3, 4a, 4b, 5)

The association of henge monuments with burial sites is noted as being significant, though chronological information is not available from aerial photography analysis (Harding and Lee 1987: 45). Using numerical calculation of characteristics of classic henge monuments (Harding and Lee 1987: 53-55), Harding and Lee suggested the likelihood of sites being henges or henge-related. They also discuss the concept of sacred geography and the role of a henge in a ritual landscape – something that has become an important theme within monument studies in later years.

This publication is a much-celebrated critical study of henges and related earthworks; however, there are limitations to it. It provides a detailed factual catalogue of sites, both new and previously studied, together with photography and transcriptions. The function of henge monuments and 'sacred geography' are raised but not fully discussed, as is the history of terminology and the difficulties in recognising henge sites from other similar circular sites from different periods (Lynch 1988: 395-396). Furthermore, the origins of henges are discussed in order to dispel previously published ideas, but other persuasive possibilities are not discussed in detail (Lynch 1988). This study does however highlight the problematic nature of investigating and interpreting cropmarks. The majority of sites that are considered to be hengiform (or mini-henge) enclosures have been identified from aerial surveys of cropmarks or have been excavated at sites which have been under cultivation. Due to this, it is often difficult or impossible to confidently suggest the existence of a bank, which is one of the defining features of henge monuments (Bradley 2007: 81). A small open henge-like monument, a ploughed-out barrow or even relatively modern enclosures or building plots such as mills, are therefore wrongly recorded within HER records until further investigation provides a clear interpretation of site use (Bradley 2007:81).

Following the continued expansion of the henge class and the general acceptance of Clark's notion that as a 'general rule' the ditch is placed within the bank (Clark 1936: 23), focus turned to trying to understand how sites which are atypical fit within the typology. Burl

(1991) introduced a further classification system whilst acknowledging that the definition is 'accurate but inadequate' as it fails to recognise the variation (1991: 13). Alongside classes I, II, IA and IIA, Burl adds further classes to group sites which are atypical. The B subclass (IB and IIB) which he uses refers to sites that have a single *external* ditch, whilst a C subclass (IC and IIC) refers to sites without a ditch and just an extant bank (1991: 13). In this scheme, Burl includes the embanked stone circles of Ireland (IC and IIC) and sites with the atypical external ditch; however, he does not provide a category for sites which survive as a ring ditch or crop mark, from which it may be impossible to argue the existence of or position of a bank.

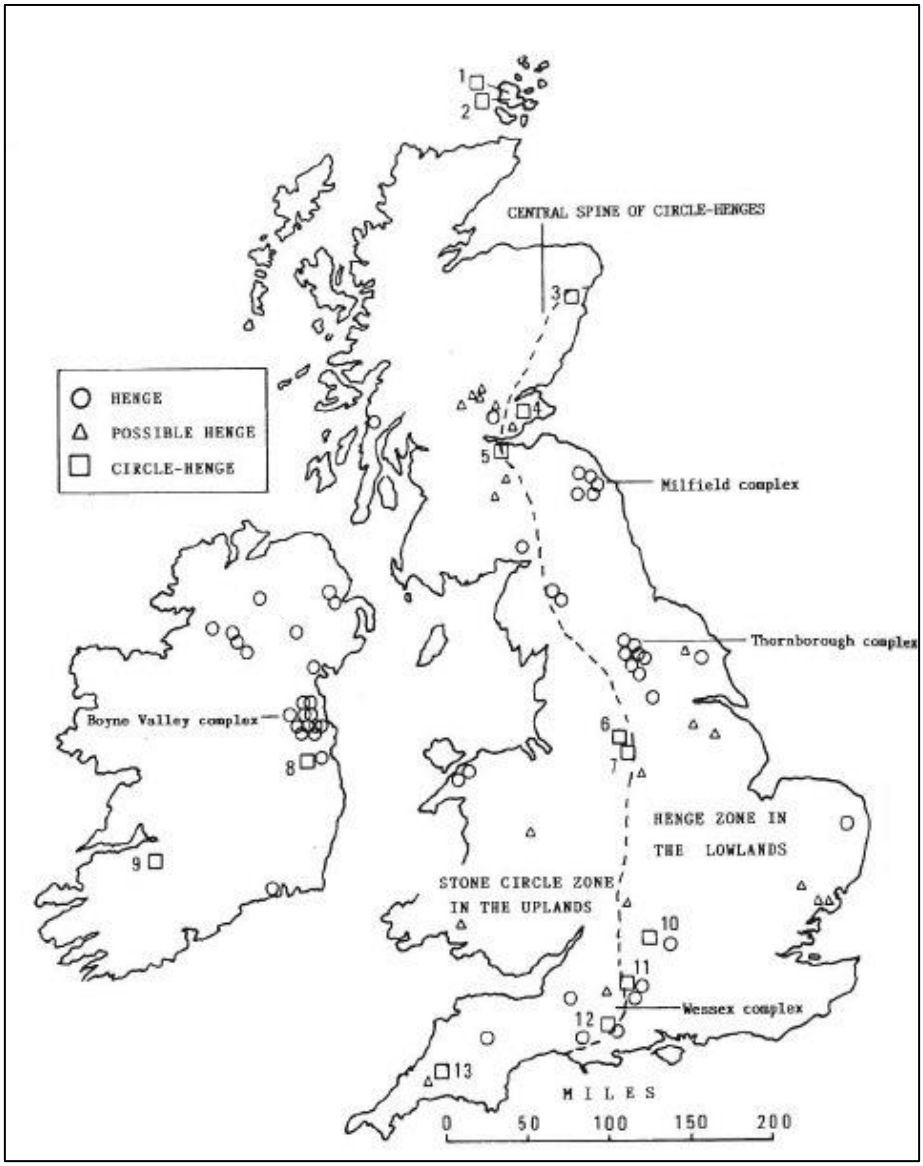


Figure 4: The distribution of henges in Britain and Ireland. 'circle henges' numbered: 1 - Ring of Brodgar, 2- Stones of Stenness, 3- Broomend of Crichie, 4- Balfarg, 5- Cairnpapple, 6- Bull Ring, 7- Arbor low, 8- Castleruddery, 9- Grange (Lios), 10- Devil's Quoits, 11- Avebury, 12- Stonehenge, 13 – Stripple Stones (Burl 1991: figure 4)

Through radiocarbon dating, Harding suggested that the classic form of henge monuments – bank outside of the ditch - became current around c.2800 BC. Sites which predated this and were considered 'atypical' were termed *formative* (Harding 2003: 12-13). 'Formative henge' is used to describe circular enclosures with a relatively early date which share characteristics of a henge but are atypical in that they have an internal bank, or the ditch is constructed of joined up pits and often do not show evidence of a bank. A well-known example of a henge considered to be formative is the first phase of Stonehenge (Stonehenge I) which has an external ditch and a radiocarbon date of 3020-2910 BC (Cleal *et al.* 1995: 531). The early date of Stonehenge allowed it to be separated and discussed in relation to classic henges and prompted the use of the terms formative (Harding 2003; Burrow 2010a) and 'Protohenges' (Cleal *et al.* 1995: 114). Further sites which fall under this heading include Llandegai A, which has an internal bank, and Balfarg riding school which appears to have no entrances or a bank. Through the architectural features and construction methods, these formative circular enclosures appear to represent continuity between the 4th and 3rd millennia BC (Harding 2003: 12). When considering these early circular enclosures alongside circular round mounds which survive as cropmarks of the surrounding ring ditches, it becomes apparent that the construction of circular enclosures broken by one or two entrances is a tradition of construction that appeared towards the end of the early Neolithic (Harding 2003: 17). These formative enclosures were part of a complex tradition of enclosure construction rather than the appearance of a *new* phenomenon: 'a reworking of an existing heritage of practices and material resources' (Harding 2003: 19). Therefore, the architectural feature of a circular earthwork can be considered to have evolved and changed resulting in an increasing diversification of form over time, rather than an explicitly 'new' monument. A similar stance is argued by Steve Burrow a (2010a; see *Figure 5*) though he questions the use of the term *formative henge* (see below).

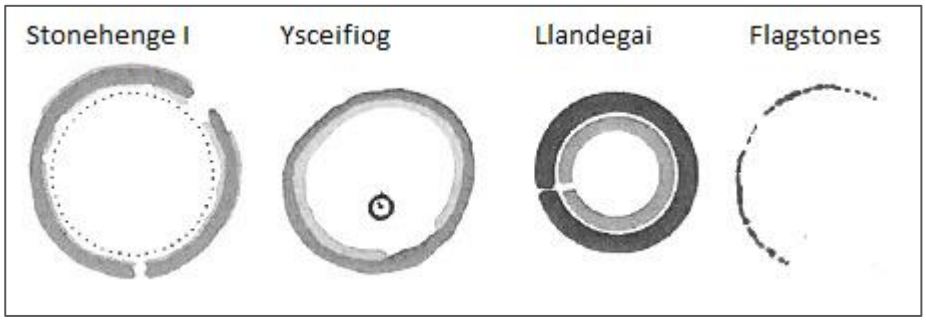


Figure 5: Potential formative henges and enclosures (after Burrow 2010a: figure 11.2)

Stonehenge I is often compared and discussed alongside Flagstones and Llandegai A, due to their shared features (Cleal *et al.* 1995: 113; Burrow 2010a); namely, a markedly circular form with a diameter between 80-107m; a bank set within a ditch; and an early construction date, most likely between 3350-2900 BC (Burrow 2010a: 184). However, it is dangerous to see these early similar sites as type-sites for formative henges as they are separated across a large geographical area, which suggests they are not a unified phenomenon (Burrow 2010a: 184).

In a paper discussing formative henges, Burrow suggests a link between sites which fall under this term and death (a similar link was also highlighted by Harding); such sites include Stonehenge I, Flagstones, Llandegai A, and similarly at Ysceifgiog (Burrow 2010a: 193). He does not suggest that the primary function of these earthworks was funerary but rather argues that the inclusion of human bone (in the form of a burial or just token deposits of bone) may have served to validate the activities that took places within the enclosures (Burrow 2010a: 193). Burrow argues that by terming these enclosures as 'formative henges' we immediately link them to a late Neolithic phenomenon; however, their early construction dates could represent a group of earthworks that appear to emerge during the chronological gap between causewayed enclosures and classic henges (2010a: 193). Furthermore, he argues that the builders of these earthworks were not experimenting with forms leading up to their 'destination' of the henge, similarly they had not 'lost the design plans' for causewayed enclosures: these enclosures were designed as a monument in their own right (Burrow 2010a: 193).

2.3 Henges in Ireland

A lot of the material discussed above is based on sites within Britain, however in contrast to the continuous re-analysis and re-definition of henge monuments as described above, the term was very rarely used in Irish literature until the 1990s and was not considered to be a distinctive monument type. The Irish literature tended to refer to embanked enclosures, as researchers saw them as different to henges as understood in Britain (O'Sullivan *et al* 2012: 37). Recently the relationship between henge monuments in Britain and embanked enclosures in Ireland has become a focus of interest (Stout 1991; Cooney 2000; Bradley 2007; O'Sullivan *et al* 2012). The term 'embanked enclosure' in Irish archaeology was defined to exclude stone circles, and it is for this reason that such a long separation and resistance to the term henge (with its Stonehenge origin) developed (O'Sullivan et al

2012:38). Recent work has catalogued over 50 henges in Ireland and has classified them into the following categories, excluding other henge forms such as timber-, pit-defined or water filled circles (O'Sullivan and Downey 2012: 35):

- Embanked enclosure;
- Internally ditched henges; and,
- Variant henge forms.

Henges are defined in Ireland as circular or oval enclosures with a surrounding bank, sometimes broad and broken by one or two entrances. The interior is saucer-like or dome-shaped in profile, and the majority do not possess an internal ditch (O'Sullivan and Downey 2012: 37; O'Sullivan *et al.* 2012). Although clearly different in form to most English sites, Irish henge monuments are generally part of monument complexes and are considered to have a ritual function. Mayburgh in Cumbria mirrors several of the embanked enclosures of Ireland in its lack of a ditch (Topping 1992).

2.4 Classification: a valuable tool?

Classification has been a fundamental tool within the discipline of archaeology and aids artefact analysis. Artefacts, which include field sites, have a 'limitless variety of characteristics' and classification is seen to necessitate the selection, summarisation and simplification of these characteristics. These characteristics are regarded as *diagnostic* and are used to clarify groupings; without this, Barclay suggests that the connection between similar monuments may be obscured by the intense focus on individual detail (Barclay 1989: 260). It is perhaps the nature of typologies that they are often problematic and prone to redrafting as they are often created to show the change in one feature of a site or object: generally, the design (or shape). By creating typologies based upon single factors we abstract these artefacts from their context and do not relate our 'types' to other factors such as chronology or regional distribution. Furthermore, the approach to classification so far has failed to consider the reasons for enclosure and the relationship chronologically between the earthwork and internal or external features. For sites such as henges which have a long chronology of construction and use which may also involve the movement of people, creating a classification system within the 'type' will perhaps always be problematic. It is possible that trying to further define classes will always result in variation and may not

conform to the expectations of a chronological and regional-based system of design differences.

The classification of monument types into sub-groups is traditionally reliant on characteristic features within their architecture; this is perhaps exemplified by the common use of illustrated plans within archaeological texts (Watson 2004a: 91). Classification is often based upon architectural components that are deemed the most significant aspect of a site by modern researchers; however, the significance of these aspects in the past evades us (Watson 2000: 11). Classification and sub-groups are a method of *describing* the past, but using classification to interpret the practices of past communities can oversimplify the available evidence and be detrimental to our understanding. Interpreting monuments based solely on their architectural features assumes that the form implies similar use and meanings for all sites within a category. Basing classification on features recorded in plans separates archaeological understanding of sites from the embodied experience of its builders and those who visited and used the site in the past, as well as investigating archaeologists. The classification system depends upon the understanding of the monument as conceptually complete and does not consider how it has changed over time: in this sense sites are viewed as a finished product within a specific moment and not as an ongoing process (Watson 2000: 12). The embodied experience of a site is an essential consideration in the interpretation and understanding of sites within the landscape; this can involve qualities including materiality, colour, texture, sound and vision which all define the experience of place (see Jones 1999). It furthermore disregards site development and inter-relationships between different classifications of monuments within a single complex. In doing so it does allow the researcher to compare sites of similar architectural form in a static two-dimensional way, by abstracting them from their landscape and chronological context. However, the limitations of such an approach are obvious: it denies the use of experiential information, it does not involve chronological distinctions which can be extremely important, and (in the example of henges) also ignores the idea of site development and the creation of monuments through the addition of such architectural features – these features often occurred in direct relation to earlier and later constructions such as burials, timber and stone settings and ceremonial avenues. Classification is problematic as often site plans are considered as the finished product and the aim of prehistoric builders, when in fact sites were constantly changing and generating new spaces and experiences.

Clark (1936) and Atkinson (1951) attempted to clarify and designate this distinctive architectural form as a class of monument, however it has remained problematic. As shown above, there are many limitations and shortcomings of such classification attempts as have been used to group these sites into sub-classes and regional groups. The summary of classification attempts since the 1930s highlights the importance of this sorting and defining within the archaeological literature of the period, often with vague references or discussions of the possible ceremonial or 'sepulchral' functions of these sites for Neolithic communities. The classification of henges has been a continuous process of re-definition resulting from new discoveries in order to understand and account for the variability which is evident between sites. Tilley argues that the continuous focus on classification and definition based on empirical detail 'shatters the category that it sets out to investigate' (1999: 97). With the introduction of the term 'hengiform' (Wainwright 1969) the restrictions to the definition that characterised the class of monument effectively collapsed: a large number of sites, varying in their terms, but were generally circular or oval monuments were added to the 'henge' class (Gibson 2012b: 1). As discussed above, Tom Clare (1986; 1987) attempted to work with a large number and variety of sites but this approach was criticised for being too reductive (Barclay 1989). A fundamental point as shown throughout Clare's papers is that henges cannot simply be viewed as a stand-alone monument with no relationship to other Neolithic sites. Rather, they are intrinsically linked to the development of sites and the functions for which they were constructed, and this can be linked in both origins and design to a variety of other sites.

Richards highlights that the inherent problem with previous classification attempts is a lack of understanding of the sites themselves (1996a: 318). He suggests this lack of understanding of what a henge represented to Neolithic communities is at the heart of classification failings, as to establish the criteria by which these sites can be meaningfully assessed requires an understand of their significance (Richards 1996a: 318; Barclay 1989). Barclay highlights this in his critique of Clare's approach; rigid adherence to arbitrary characteristics places possibly related monuments in separate groupings, and monuments that are very different into the same groupings (1989: 261). Ignoring the role that regional tradition plays in the design and the complex development of sites is detrimental to the understanding of these later Neolithic/early Bronze Age monuments. This is perhaps where relational typologies that consider a broader range of characteristics and relationships could

be useful; they provide a more complex understanding of the variety and associations within a site but still allow a degree of categorisation (see *Chapter 4*). Typologies and classification can be a useful tool when discussing certain features or overarching designs, such as the clear significance of circular design within British Prehistory. Due to the variation in surviving condition, investigation and excavation at henge sites, attempts to classify by details rely on the visible features and this is, therefore, problematic due to the nature and quality of the evidence (Barclay 1989: 260). Furthermore, although useful, classification can become misleading when complex data is simplified to such an extent that it fits into a neat classification (Barclay 1989: 260).

A basic issue with the classifications listed above is that they generally rely on morphology and with many sites only known through aerial photography or geophysics it is difficult to know the function or period of the site. This leads to the classifying of monuments from different periods under the same term, which has been demonstrated by Harding and Lee (1987) and by Alex Gibson (2012c) in a review of Welsh henges, many of which had been wrongly classed as a henge. Classification also fails to include chronological change and phases within a single site (Watson 2004a: 84). A site that has been altered over time as a result of innovation and re-designs will have multiple phases of activity and could possibly have architectural features that would make classification extremely difficult due to the multiple options of groups within which it could reside. Russell suggests that we must break down the rigid forms of classification and 'question what we perceive to be our own archaeological reality' in order to question and reconsider different viewpoints and conclusions (2002: 18). When examining Neolithic architecture, Russell suggested that we unconsciously look for patterns, in order to create order and classifications, even if no clear patterns and similarities exist (2002: 19). Categorisations always have failings and although elaborate schemes have been attempted (i.e. Burl 1969; Clare 1986) they are ultimately unable to account for all configurations of architectural and temporal diversity (Barclay 1989; Watson 2004a). Classification can also be considered to limit interpretation due to the morphological basis of many attempts, rather than acknowledging a broader perspective, that includes the wider landscape (Watson 2004a: 85). It can be seen from the lack of landscape or related monuments mentioned above that classification attempts thus far have failed to discuss landscape setting and the relationship between the site and its

surroundings, furthermore classification has been argued to ignore discussions on how these sites and landscapes are experienced (Watson 2004a: 95).

2.5 Current Definition

2.5.1 The current archaeological debate

The current general definition of characteristics essential to 'henges' is a roughly circular structure with an earthen bank and interior ditch, with entrances providing access and with an interior which may or may not include several different features including pits, timber settings and stone settings (Gibson 2013). The term is now applied to a large number of sites that all enclose various archaeological features, including standing timbers or stones, pits, coves, burials and mounds. This wide variety of diverse sites has created a confusing class of monument, which Gibson believes is almost now redundant as the term has become loaded (2013). He argues that the term is problematic, as it is often not known what the meaning of the term is for archaeologists; this is an understandable consequence of the vast number of sites that have been identified since the class was created (Gibson 2012b: 1). Considering the number of sites now associated with the term, the only similarity between them appears to be a ditch and a tendency to be near-circular (Gibson 2012b: 17).

Gibson has, therefore, posed the question '*do henges exist*?' (2013), criticising the use of the term 'henge' in archaeology and leading him to advocate this term now has 'nostalgic overtones and connections' and should possibly be abandoned in favour of enclosure, stone and timber circles (Gibson 2012b; 2013; 2014a). The term has a wide usage within British archaeology and grouping such variation into one term is dangerous as dating, description and classification are inadequate for this large group of sites. Through examples he suggests that the only consistent characteristic is the tendency to be generally circular and to be surrounded by a ditch, whilst also arguing that the idea of formative henges is also misleading (Gibson 2012b: 17). Gibson therefore proposes that we, as archaeologists, should stop shoe-horning a diverse range of sites into a single 'out-dated and now inadequate' class of monument (2012b: 17). Gibson argues that as archaeologists we are trained to be objective and we should, therefore, adopt an 'objective viewpoint' and recognise earthen circles as just one manifestation of the circularity tradition that dominates the 3rd and 2nd millennia BC (2012b: 1). Gibson advocates the use of 'earth circles' which makes them comparable with timber and stone circles, as perhaps having similar cosmological implications and functions. He also argues that this term is not loaded, does not carry the

same interpretive confusion as 'henge' does, and it can be sub-divided (2012b: 18). Double entrance henges, due to their similar size and form may be a separate class, and Gibson suggests that if we are to keep the term henge, that this is the group with which it should be associated (*ibid*). He argues for the acknowledgement and further understanding of a long-lived and varied tradition of single entranced enclosures with a more chronologically defined and homogenous group of double entranced enclosures (Gibson 2012b: 17).

However, if we are to abandon the term altogether how are sites to be understood? Is not 'enclosure' just as much a loaded-term? Archaeological practice is bound up in the ways in which words and our language is used, and discussions rely on key words to aid understanding of the wider picture (Watson 2004a: 89). 'Henge' is well known to be a problematic term from its first use in the 1930s, exemplified by Kendrick's almost apologetic use of it, but it can still be considered a useful reference as long as it is not considered uncritically (Watson 2004a: 89). Watson considers henge to be a 20th century *brand* of Neolithic monument, and a modern invention, which has grown in influence due to its frequent and constant use in the literature (Watson 2004a: 89-90). This has been emphasised above with the use and popularity of the term in reference to modern constructions and conceptions of what constitutes a henge. In many cases 'henge' is being associated with an event (such as New York Henge) as opposed to strict architectural characteristics. Similarly, modern resources such as HER, NMR and archival facilities rely on such terms to organise and construct large databases of information. Terminology is needed within archaeology and so abandoning the term is not realistic. However, using it critically and clearly stating what you consider it to mean is an effective way of working around this problem. Removing words which carry such conceptual baggage would not aid interpretation and would serve only to add to the confusion surrounding henge studies and appropriate terminology. We must use loaded terms, however, clarifying what one means by them is essential.

Furthermore, if we consider Neolithic landscape as dynamic and interlinked with society and everyday life is it wise to consider henges separately from sites which may naturally mimic the architecture and, therefore, create a similar effect? Neolithic society arguably did not distinguish between natural and artificial, yet this dichotomy is so central to the modern perspective of a landscape that we impose the boundaries of a monument by the extent of

its human-made features; this is an issue which has been discussed in many publications (e.g. Tilley 1996; Bradley 2000; Ingold 2013). By excluding sites such as stone circles or ring ditches from any comparative or comprehensive study, surely this promotes and emphasises the culture/nature dichotomy in the minds of archaeologists. Bradley has previously suggested that circular sites across Britain were purposefully located at the centre of 'circular landscapes' (Bradley 1998a; 2007). For extant henge sites, it is often noticeable that the earthwork merges with the distant horizon when looking out from within the monument and has been argued to suggest a deliberate attempt to create a visual effect that resulted in the site appearing to be the centre of the world (Bradley 2007; Watson 2001; 2004b). Sites such as Castlerigg, a stone circle in Cumbria in a prominent position surrounded by high land, has the effect of being enclosed within a circular area which dips before rising up to a high and impressive horizon of hills; it, therefore, shares some visual similarities to the characteristics that define a henge but are naturally occurring and perhaps on a larger scale (C. Fowler *pers. comm*.; *Figure 6* below).

Figure 6: Castlerigg stone circle and its horizon October 2014, author's photo

Aaron Watson argues that if we are to accept that artificial and natural features were considered interchangeable in the Neolithic, then our definition of henges would fundamentally change (Watson 2004a: 95). This would consider henges not as a fixed monument, but as a 'performance that creates a world with the audience at its centre' (Watson 2004a: 950). Furthermore, can you define a henge as being a bank and ditch with internal structures if there is a chronological gap between features upon a site?

2.5.2 Public perception & use

The terminology surrounding henge monuments is not only contested and confused within archaeology and academia, the effects filter out to the public (*Figure 7*). The term is often used in direct association to Stonehenge, either to the standing stones or to the solar alignments and used in a derivative way to label any replica or site that has such features. Whilst the term 'henge' is also emotive and suggestive of the mystery of the past for the lay person (Gibson 2012b: 17); interpretations relating to ancient ritual, ceremony and religion have further strengthened the use of this word and the interest sites which are coined 'henges' attract from amateur archaeologists, the general public and people who have spiritual interest in these sites and past communities.

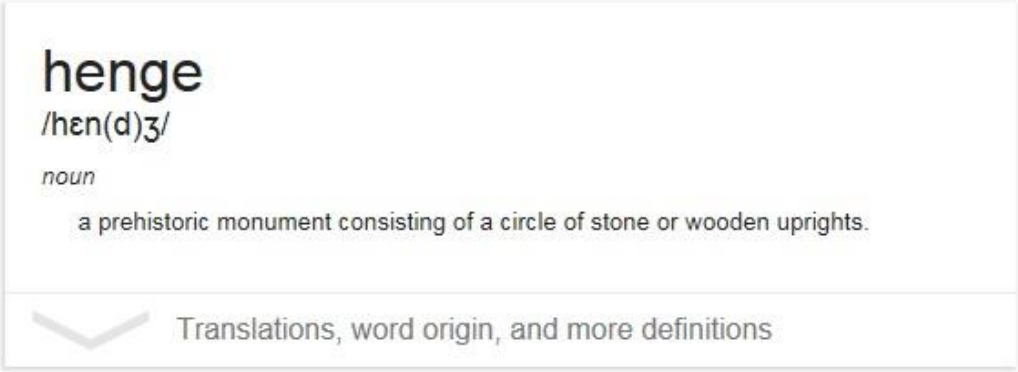


Figure 7: The definition provided by google for 'henge' (search term 'define: henge') (Google 2014)

There are examples of the term being used in relation to the solar alignments witnessed at Stonehenge, one example being that of the 'cityhenge' - an annual event where the sun aligns perfectly with the street plans of a city to illuminate the buildings (McKinnon 2014). There are websites and applications that can predict and record when the next 'cityhenge' will occur in any given location (McKinnon 2014). Glastonbury 2007 was even the site of a Banksy 'privy' (or loo) henge constructed in a 'sacred' area of the Glastonbury festival complex which resembled the stone circle of Stonehenge (see ***Error! Reference source not f***

ound.). There are also websites and blogs devoted to 'clonehenges' with rules on the 'hengyness' of a site:

> "*1. if it looks a whole lot like Stonehenge (lintels are a key aspect in that evaluation!), it's probably hengy enough*" (Clonehenge website).

Figure 8: Examples of the present understanding and use of the word 'henge' and the function and importance. Top: IceHenge, Wisconsin (photo by Eli Wedel); Middle: Banksy's 'Loohenge' at Glastonbury Festival (Flickr); Bottom: Achill Henge, Ireland (Cook 2012).

Returning to the example of the Holme timber circle, nicknamed 'Seahenge' by the press, there was a large demonstration and protest which attempted to halt the excavation of this site in 1999. The protesters considered it to be sacred and should, therefore, not be disturbed, considering the archaeologists to be 'vandals' (Wainwright 1999). The rescue excavation continued in order to preserve the timbers from further erosion and damage, but the derivative name given to this Bronze Age timber circle which linked it to the understanding of exemplifies the significance which is placed on the term 'henge'. There is a long history of recorded public interest in henge monuments, from 18th century visitors who saw the Yorkshire and Cumberland sites as 'tilting' or single- combat arenas, to interested locals who recall traditional tales of there being "treasure in't middle" (Thomas 1953: 428-429). Recently there has been a surge in interest in such sites, perhaps due to the accessibility of the internet and the neo-paganism movement. This interest has resulted in an extraordinary number of modern sites and events that draw on the known and mythical history of henge monuments.

In 2011 a large concrete replica was completed on the Island of Achill in County Mayo, Ireland. Its creator constructed it to be a place of 'reflection' on the state of the Irish economy (Stout 2012: 31). Constructed in a period of economic instability, this monument represents a 'radical act of public protest' against the state of the nation (Stout 2012: 31). It is constructed of thirty large columns with adjoining lintels of precast concrete and has a diameter of 30m. The position of this young 'monument' is aligned with the solstices and equinoxes, with the sun shining through the gaps in the concrete uprights lighting up the inner space. The construction draws large crowds and many tourists to witness these alignments, with groups growing in numbers to visit sites at these specific times to reconnect with prehistoric ceremonies (*ibid*); this is similarly seen at sites such as Newgrange and Stonehenge, where huge numbers gather to celebrate solstice and astronomical alignments. Such installations divide opinion, with some celebrating it as an artistic protest, whilst others see it as a 'butchery' of the Irish Landscape (Cooke 2012). This site does, however, serve as an example to illustrate the use of the word 'henge' by the general public as being in relation to Stonehenge. Furthermore, Achill henge has become important within the community for a variety of reasons, some of which the builder perhaps could not have envisioned, from a place of contemplation to a daring artistic protest against the planning rules, to a defamation of the landscape and tourist attraction (Cooke 2012; Stout 2012). Achill henge

serves as an example and reminder for this study that the reasons and meanings envisioned by the builder will not necessarily be the same for the community who ultimately come to use it; the public reaction can differ hugely from the builder's original purpose. This is also evident at Banksy's 'privy' Stonehenge replica, here it acted as a gathering point for people at Glastonbury and was soon covered in artwork, images and messages – using the artistic creation as a platform for communication.

Due to the fame and mystery surrounding Stonehenge and its surroundings, it is drawn upon by those trying to recreate such monumental sites and using the derivative name of '–henge'. Its fame has sparked a world-wide interest in its arrangement, solar alignments and monumental and iconic size. However, it is often overlooked as to how this site relates to the terminology of 'henge' within the wider public and the monument type as defined by archaeologists. The graph below (*Figure 9*) highlights how popular terms such as henge and stone circle have been within English books since the 1930s, in relation to terms such as hengiform, the distinction can be perhaps attributed to how often Stonehenge is discussed, cited and republished in books of all subjects.

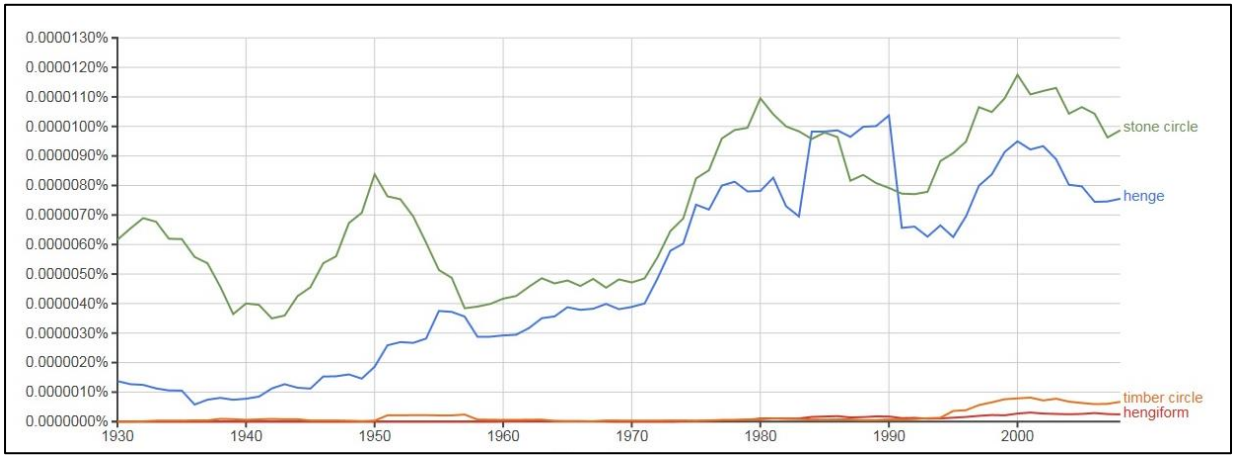


Figure 9: Google Ngrams graph showing popularity of keywords in English books

2.6 Conclusion

This chapter has outlined the historical approach to henges and typology, highlighting the different approach authors have taken in the search for a clear definition of the term 'henge'. All approaches found ways of distinguishing patterns within the catalogue in order to produce a classification system. These approaches were created it an attempt to define and group similar sites, to make smaller clusters which could be investigated further. Whilst early attempts focused on one- and two-entrance henges, as the group of sites deemed to

be henges grew, authors had to expand upon such a simple system, introducing terms such as hengiform, henge-enclosure and formative henge (e.g. Wainwright 1969; Harding 2003). Clare's (1986) paper was the first to attempt a classification system that recognised the architectural form of the interior, and included 'ring bank' and other forms which were outside of the traditional definition (see *Table 1*). Alongside the form, internal features were also considered, however, the variation between form and internal features resulted in a wide range of results and the paper was criticised (see above). Whilst these publications aimed to assess, group and explain the variation within the henge group, as the number of known sites grew, with the use of aerial photography and geophysical surveys, the possibility of producing a simple classification system became increasingly difficult. Some groupings can be seen as a useful way of looking at sites: henge-enclosures are useful for the few sites known to enclose vast areas and the double-ditched, double-entrance sites seen in Yorkshire also apply to a smaller comparable group. In contrast, hengiform has become a well-used term for a large percentage of related sites and has become a word associated with uncertainty (as discussed further in *Chapter 5*). Recent opinion has turned against this approach (for example see Gibson 2012b; Younger 2015), focusing on interpretation of use and meaning (see *Chapter 3*). Clare (1986) attempted to consider features as well as architecture, whilst Harding (2003) took a chronological approach in organising henge sites; this thesis will build upon these publications and assess whether a typological approach, which includes multiple aspects of a site, is useful for henge monuments (see *Chapter 4* for the development of a relational typology approach).

Monuments are often built and altered over a period of time, with different architectural alterations changing the social interactions and affecting the experience of events; therefore, monuments are often an accumulation of architecture, events, perspectives and cosmological principles. Despite this, chronology and history of a site are often overlooked in large studies of monument types or within classification systems. The previous sections have demonstrated the importance of henge monuments within archaeological study: both in terms of engaging with the public and within academic investigations. Previous classification attempts tended to focus on one feature over another, usually internal features or the ditch and bank. It is perhaps necessary to move away from such tactics and instead focus on the site as a whole. There is a wide range of variety within 'henge' sites and looking sequentially into the archaeological and chronological detail could provide invaluable information about

the creation, use and importance of this site. Through viewing the earthwork as a feature of the site and investigating its chronological relationship to other features or periods of use, we can investigate why such earthworks were created and if there is a pattern between sequence and earthwork construction. In doing this we can ask the following questions:

- What does the creation of a ditch and bank do to a site? Does it alter its use or function?
- Where does this episode of construction occur within the history of the site? Is it the start of use at this site, or an elaboration of an area of significant previous use?
- Can we detect any associations or patterns by viewing these sites in this way?

From this perspective we approach these sites as how the earthwork relates to other features, rather than how and what features lie within a henge. This approach would not seek to flatten the archaeology and instead would attempt to emphasise the individualistic nature of sites; it would see the term henge being used in reference to an architectural earthwork feature whilst relating to the evidence and interpretations of a site as a whole. In this sense, I would attempt to move away from a 'henge' as a complete and finished monument, and therefore a loaded term, and try to understand the complexity and chronological development and change which was undertaken with the construction of these sites. Henge would, therefore, be understood as a (near) circular bank and ditch which served to elaborate an area, perhaps with the aim of having a specific meaning and effect. In this sense a henge is not a completed monument or finished construction with a masterplan in mind. Investigating how and when the monumental ditch and bank was created and what activity occurred on the site previously, may lead us to a better understanding of why such tasks were undertaken, and how and why they were so important to communities in Neolithic Britain. Henges may then be considered as a later elaboration of a significant space or *place*; the notion of place-making and how geology, topography and previous use should be considered in the study of henge sites (see Pollard 2012; Younger 2015).

A recent PhD thesis has focused on a number of these issues and has adopted a biographical approach in order to understand the long and complex sequence of events that occur in the creation of these henge sites (Younger 2015). By focusing on recently excavated or reinterpreted henge sites in Scotland, Rebecca Younger presents a number of biographical accounts that highlight the variation in processes and activities that occur at sites all labelled

'henge'. In doing so she highlights similarities in the way sites are changed and altered over time and reinterprets the archaeological evidence to understand henge sites as beginning with 'place-making' actions and further acts of commemoration (*ibid*).

This chapter has also outlined how henges are now seen from the perspective of the general public. From the ever-present fascination with Stonehenge and the effect it has on the understanding of what a henge is, to the recreation of modern 'henges' through artwork and events: it is clear that archaeological sites that we know as henges, are not only still a focus of academic discussion and investigation but are also emotive and significant for many members of the public. There is a renewed interest in rituals which can take place at these and other prehistoric sites with the growing popularity of Neopaganism. Although the terminology is contested, it still remains, and it is perhaps how we use and clarify the terminology which needs improving rather than total abandonment of words that have such meaning and history in both academia and the public. We perhaps have a responsibility to engage further with the public and clarify how and what is meant by the use of such terms, rather than sending the word and terminology out into the world of the media and general public and then rejecting it internally within academia alone. With the media and public showing a significant interest in past communities, monuments and ritual, it is essential that we build upon this. This interest also highlights how terminology and types can mutate as successive generations reflect on ancient sites and the past. This serves as a reminder that whilst this thesis examines typology, the reasons for creation and successive uses and elaborations to sites are important factors in a site's history.

Chapter 3 – A History of Henge Interpretation

3.1 Introduction

Henges and related circular monuments such as stone circles have inspired a diverse range of interpretations and continue to provoke discussion today. Perhaps due to the simplistic nature of the design and the large scale of many extant sites, or indeed the lack of an immediately clear primary function, henges have inspired a large variation of interpretations; from astronomical observation to 'earth mysteries', diverse interpretations of these enigmatic monuments have come to dominate the public perception (Watson 2000: 4). This chapter highlights some of the main avenues of academic focus: considerations of the origins of henges, to their function and use within Neolithic and Bronze Age society.

3.2 Interpretations of the origins of henges

> '*Henge monuments were a northern invention in the past and a southern invention in the development of modern archaeology. The two perspectives have been hard to reconcile'* (Bradley 2011b: 184).

A fundamental change appears in the architecture of British monuments in the period just prior to 3000 BC: Amongst the causewayed enclosures and the rectangular cursus monuments, roughly circular monuments including henges begin to appear in the landscape, which have a different form and appearance. As henges do not appear to have direct parallels on the continent, many authors have attempted to investigate the origins of this architectural style of this type of monument, whilst trying to link them into a timeline of monument evolution.

Dating evidence at henge monuments is difficult to link to construction: samples collected from contexts beneath the bank can only provide a *terminus post quem*, whilst deposits within the ditch can only provide a *terminus ante quem* at best (dating is discussed in detail in *Chapter 6*). This is because of the nature of the contexts: deposits sealed below the bank may pre-date the bank construction considerably, whilst deposits within the ditch could be deposited any time after the construction of the ditch (Gibson 2012b: 13). Material taken from within the henge can only date that specific activity upon the site and does not directly relate to the henge construction itself. Furthermore, the material itself can be problematic in that bulk samples must be considered cautiously, other materials may be of early date but have washed into deposits with the erosion of the earthwork or have been re-deposited by

the construction, ditches may also have been purposely kept clean for a long period and so deposits do not always equate to specific moments in a site's construction.

The internal ditch and encircling bank were the main consideration in early discussions of henge origins. This led to their comparison with disc-barrows: Woodhenge, until identified via aerial photography, was considered to belong to the disc-barrow class and described by Hoare as a 'mutilated' Druid barrow (Hoare 1812: 170; Goddard 1913: 248) and Crawford likened Avebury to a vast disc-barrow (Crawford and Keiller 1928: 213). In 1936 Clark reassesses this link stating that disc barrows seem to belong to the middle Bronze Age, whilst the 'henge' sites dated suggested their construction and use within the early Beaker period (1936: 30). Disc-barrows, he argues, are derived from the bell-barrow, with the available chronology suggesting that there is no ancestry between the henge and the disc-barrow, and no direct connection at all (*ibid*: 31).

Clark compared henge sites based on the stone and timber uprights found within the central area of these monuments. It was suggested by some inter-war authors that the concept of timber circles reached Britain from the European Mainland, traced to the Lower Rhineland, with the incoming concept being related to the arrival of 'Beaker folk' into Britain from this region (e.g. Crawford 1929: 259). Clark regards 'henge' monuments to be similar in plan to Dutch 'palisade barrows' (*Figure 10*), though he states that their function differs fundamentally: British henges were sacred places to facilitate ceremonies whereas Dutch palisade barrows were 'simply tombs' with no entrance, and the timber uprights incorporated into the material of the mound and often barely projected above its surface (Clark 1936: 31). The layout of wooden posts in concentric circles was the initial similarity as observed by Clark, who considers internal structures as defining features of henge monuments (Clark 1936; 1954). The Dutch palisade barrows vary in their design and layout of wooden posts and the entire area is then covered with a mound, covering the entirety of the enclosed space, effectively closing the site off.

However, in this same period Van Giffen regards the British 'henge' monuments to be the inspiration for Dutch monuments and suggests a reflux of 'Beaker Invasions' (Clark 1936:31; Clare 1987). This chronology is extremely outdated and the dating of sites relied on pottery before the advent of radiocarbon, but this publication highlights the desire to pin-point a single origin for henge monuments in the early archaeological literature, and again suggests

the movement of people with ideas as the cause for this monument type. This could be an example of 'continental parallel-chasing' (Fleming 1972: 58); the need to seek links between societies both geographically and chronological distant is a common feature of typology discussions of this era in archaeology (Fleming 1972).

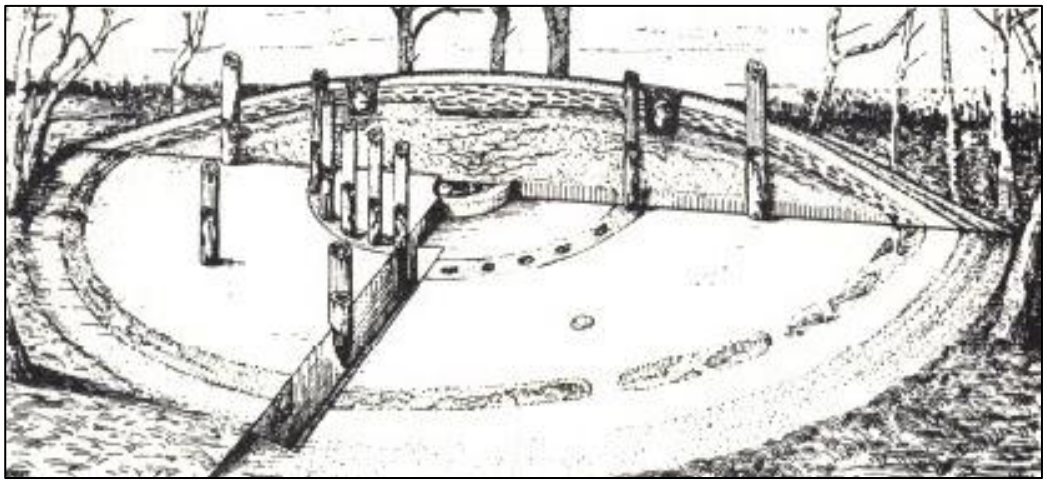


Figure 10: Example of a Dutch palisade barrow at Harendermolen, Groningen (Clark 1936: Fig.15)

Clark admitted that wooden 'henge' monuments of Britain are entirely different from palisaded barrows of the Rhineland and the Netherlands, but did suggest that the comparison provided a possible origin for 'henges' (*ibid:* 32-36). As highlighted above, Clark's investigation into possible origins focuses on the presence of timber and stone structures within the interior area for comparison to other sites; he discusses the ditches as 'secondary affairs', existing only as a result of the necessity to dig in order to accumulate material for the creation of a bank (1936: 31). He suggests the bank is in part a way of outlining the sacred inner area, but must have served as a stand for an audience. The origins of the bank and ditch of henge monuments, in Clark's opinion, could be accounted for 'in the nature and purpose' of the monument (1936: 31). Similarly, the causeway occurs as a result of needing access to the inner area for the rites performed within it, therefore, as a causeway must pass over and through the bank and ditch this is a necessity that Clark regards as requiring no further explanation or investigation (1936: 31).

Atkinson criticised Clark's argument by suggesting and demonstrating via a map, that the distribution between stone circles, henge monuments and passage graves appeared to be mutually exclusive (1951: 93, FIG.29). This, he argues, does not show a derivative link between these monument types as the conditions for uniform close contact do not exist

(1951: 93). He criticises Clark's assertion that henges and Dutch palisaded barrows are connected, and instead suggests that a range of middle Bronze Age dates argues against such sites being a 'prototype' for British Neolithic henge monuments (*ibid*). Atkinson suggested that class II henges, being related to the Beaker period in his interpretation, were a manifestation of the British Beaker culture, unique from the continent, and were influenced by the 'earlier' class I henge monuments, though he does not suggest an origin for class I henges (1951: 93-96). In Atkinson's (1951) interpretation, class I sites were a native type of structure that was adapted and imitated after the arrival of Beaker communities, creating a distinct type of monument of the Beaker period, which had no continental pre-cursors.

Wainwright argues for the 'ceremonial circle tradition' of the 2nd millennium BC to be derived from causewayed enclosure earthworks, which served as meeting places for the wider community (1969: 112). This view is also shared by Smith (1966; 1971), Catherall (1971) and Harding (1998). Both causewayed enclosures and henges appeared to have been visited and used seasonally, being the location for the wider community to gather at specific times of the year. Smith considered this link convincing as she argued it was improbable that two traditions of 'constructing non-utilitarian enclosures' could arise independently (Smith 1966: 474). Viewing causewayed enclosures as a direct precursor to henge monuments stems from a number of factors: they are regarded as chronologically successive; they share a similar shape and architectural form and a similar size in some cases; the artefacts and the manner in which they are deposited at these sites are considered similar; and finally, both site types appear to form an area of concentration for further tumuli, and other additional constructions (Clare 1987: 457). Catherall focused on class I henges (those with a single entrance) as they are often related to early pottery. The ditches of this class were generally of a segmented form and are the basis for the argument that henges develop from earlier causewayed enclosures, which are constructed by the use of segmented ditches with many causeways (1971: 151-152). This publication also suggests that pre-henge phases could be the link between earlier Neolithic monument traditions to the classic henge tradition. Cairnpapple phase I, several of the Dorchester sites and Stonehenge I all share similar initial phase characteristics; these include circular or semi-circular settings of holes which contained cremations, and a bank and ditch surrounding it (Catherall 1971: 150-151). This presence of bone skewer-pins at Stonehenge I, Cairnpapple I and the Dorchester sites also

strengthens the proposed link between these early sites (Catherall 1971: 151). Burl similarly links henges to causewayed enclosures and suggests that they replaced causewayed enclosures as a meeting place for exchange, this was based on the association with and presence of stone axes at both sites (1976: 25). Harding suggests there is a period of transition between the segmented and irregular ditch form of causewayed enclosures and the more circular and regular boundary of henge monuments (1998: 215). Rather than the sudden replacement of causewayed enclosures ditch form, the continuous perimeter appeared gradually, with alterations appearing at causewayed enclosures to further restrict movement (Harding 1998: 215).

This reliance on causewayed enclosures as a direct precursor to henge monuments has been criticised by many authors (i.e. Clare 1987; Barclay 1989; Bradley 2011b). Similarities between the shapes and key features is often the basis of the link made between causewayed enclosures and henges and very little attention is given to the function and sequence of individual sites (Barclay 1989: 262). Catherall acknowledges the lack of understanding of the function of both causewayed enclosures and henges, but does argue that the possible function of a rallying or meeting point provides another link between the two monument types (1971: 152). Furthermore, the publication highlights that a similar number of practices may be evident at both causewayed enclosures and henges: from the significance of entrances, seen through the elaboration and depositional patterns associated with them, to the use of the ditches (*ibid*). Through the analysis of the finds of several sites, he argues that similar feasting events occur at both causewayed enclosures and henges, and further supports the link through a number of examples of both site types which show the elaboration of an entrance (Catherall 1971: 152-153). However, Clare has criticised the similarities used to provide a basis for a direct association: he considers size to be an arbitrary criterion for monument comparison, and the presence of a causewayed ditch could be indicative only of a common constructional technique (1987: 457). Causewayed ditches are also a technique used in the construction of long barrows, and similarly, 'domestic' refuse such as pottery and animal bones are also found within long barrows, megalithic tombs and round barrows (Clare 1987: 457). Clare highlights that these criteria do not effectively show a direct relationship between the construction of causewayed enclosures and then subsequently henge monuments (1987). For a direct derivation, Clare states that it would be expected that henges with the earliest dates should be within the area of

causewayed enclosure use, which he argues is not a pattern that can be clearly observed (1987: 458).

Clare (1987) rejects a simple derivation from causewayed enclosures and argues that the henges should be considered in relation to a large number of site-types. Through a comparison of features found both at henge monuments and structures relating to mortuary practices, Clare notes that there is circumstantial evidence for a relationship between the two types of site. This is significant, he argues, as the geographical distribution of the two is more similar than that of henges and causewayed enclosures; there are also similarities between causewayed enclosures, mortuary enclosures, henges and Neolithic ring ditches (Clare 1987: 462). Clare does not argue for a direct derivation of henges from mortuary structures and enclosures in place of causewayed enclosures, instead, he suggests that the features and traditions that are utilised in henge monuments are not found in causewayed enclosures alone (1987: 462). The argument proposed in his paper is that henges can be best explained as evolving from a broad tradition 'which we see manifest in the causewayed camps', 'mortuary enclosures' and 'Goodland-type sites'. He extends this to consider where this broad tradition itself originates from and discusses the creation of monuments on the European mainland. He argues that the evolution of Danish sites parallels the relationships proposed between megalithic tombs, mortuary structures and henges in Britain (1987: 464). He, therefore, suggests that a reasonable inference is that both these traditions, and those in Northern Germany and the Netherlands, formed from a single earlier tradition. He considers this earlier tradition to possibly be the 'North European Technocomplex' that was proposed by Madsen in 1979. This 'technocomplex' included both freestanding rectangular and circular structures; several sites within this grouping are reminiscent of the British complex of henges, causewayed and mortuary enclosures and pre-date or are contemporary with the British sites (Clare 1976: 464). Clare argues that the British henge-complex (the relationship between henges, causewayed enclosures and other 'mortuary' structures and enclosures) shares a common ancestry with continental sites of the Neolithic and Early Bronze Age. Indeed, Clare suggests the question we should be investigating is why the circular shape became so dominant within this period in Britain (1987: 464). Clare also discusses the confusion and interchanging terminology used to label henges, ring ditches and ring banks: many sites have been termed as different site types by different authors. This confusion comes from the similarities of form and function between henges, ring banks,

ring ditches and stone circles: all four categories were defined as 'a circular area within which or around which the ritual was to be performed' (Clare 1987: 466). To understand this confusion, Clare considers these site types to be parallel developments with unenclosed stone circles showing preferences of style (1987: 466). This paper, although beginning by looking at multiple origins and a 'pool' of ideas to consider such sites as complex and variable, still appears to reduce the origins of henges back to a 'single' tradition, albeit an overarching European tradition.

Based upon a summary of the spatial and chronological distance between henges and stone circles, Harding and Lee suggest that they should be considered as a separate phenomenon ***but*** also as varying manifestations of the same form (1987: 58). It is instead questioned whether the search for a clear single origin is useful, as at the time of writing there was no single point of origin that could be pinned down (Harding and Lee 1987: 61). Instead, they argue that the collection of accurate data should be the focus to understanding sites better, specifically those that appear to be in transitional phases between monument types (Harding and Lee 1987: 61).

The importance of enclosure can be seen within the range of early Neolithic monuments within the landscape: chambered cairns and mortuary structures and enclosures contain human remains and activities associated with death; causewayed enclosures enclosed areas with permeable boundaries, often involving multiple circuits of ditches and including natural boundary elements of the landscape. Harding views 'formative' henges as part of an emerging tradition of enclosure, relating to the ditch circuits associated with round barrows from c.3500 BC (Harding 2003: 17). The circuits surrounding round barrows also become less irregular and more continuous towards the end of the fourth millennium and the increase in such enclosures is broadly contemporary with the decline in causewayed enclosures (*ibid*). This approach views henges as emerging out of a wider tradition of enclosure – 'the reworking of an existing heritage of practices' (*ibid*).

3.3 The role of henge monuments in interpreting social organisation

The Neolithic period in Britain saw the monuments and ceramic styles deviate from those in use on the European mainland within the same period. Monumental constructions are the most visible results of that deviation, in the form of cursus monuments and then henge earthworks (Parker Pearson and Cox Willis 2011). The emergence of henge monuments and

circular architecture is indicative of large-scale earth moving projects which began in the Early Neolithic with long barrows and causewayed enclosures; this has been interpreted as evidence of social change within the later Neolithic. This section outlines the chronological changes and themes in considering henge monuments in relation to the structure of society.

Early mentions of social organisation focus on the materiality as a marker of identity between separate cultural groups, with culture historic inferences prevalent. Piggott, a well-known culture-historian, considered the building of these circular earthwork monuments alongside the use of Grooved ware and beakers as indicative of a 'lowland culture' (1938: 57). In 1939, he repeated this association relating henges to '*A Beaker people from Holland and the Rhineland',* in contrast to stone circles which he considered to represent a highland culture that the Piggott's considered to be of Breton origin (Piggott and Piggott 1939: 141). Although not discussing social organisation within a community, they do use the archaeological material to argue for a clear distinction made between groups of people, with such monuments representing ideas of identity and belonging to a specific 'culture'.

Stonehenge, for Richard Atkinson, was the material expression of a goal imposed upon a group of people 'from above' (Atkinson 1960: 166). Atkinson considered the furnished graves of Wessex as evidence of chieftains and questioned the possibility of such a monument being the result of a common will of a large number of people (1960). Stonehenge was sufficient evidence for Atkinson to suggest the concentration of political power in an individual, or lineage that could create the peaceful conditions between warring 'clans' for such a huge ceremonial monument to be constructed (1960: 166). This account does not, however, consider the chronological stages of the construction of Stonehenge and links the rich Wessex burials of the Bronze Age and their construction to the same period without awareness of the temporal gap between them. The large monuments of Wessex, such as Durrington Walls and Avebury, command the literature of social organisation in the late Neolithic; their size represents a significant movement of earth for their construction. For Wainwright, this focus of human energy implies that the society was able to divert human resources away from the primary task of food procurement towards monumental constructions, thus representing a stable, successful society (Wainwright 1970: 30). Wessex became the focus of Renfrew's (1973) analysis of social and political organisation within the Neolithic and Bronze Age. This publication introduced the concept of chiefdoms into British

archaeology and was extremely influential in the development of social archaeology (Bradley 1991: 46). In this account chiefdom is defined as:

> '*…a ranked society, hierarchically arranged, sometimes in the form of a conical clan where the eldest descendent in the male line from the clan founder ranks highest'* (Renfrew 1973: 542).

Renfrew suggested a hierarchy of Neolithic monument types within the development of the Wessex landscape based upon the labour required for their construction, which is summarised below. It is now known that cursus monuments are earlier than the later Neolithic henge monuments and so this pattern of increasing hours of labour is not as clear as Renfrew originally suggests:

Table 2: Table showing the hierarchy and labour estimated to construct monuments in Wessex (information in Renfrew 1973: 547-548)

	Hours of labour	**Monument types**	**Example**
i	10,000 or less	Early Neolithic unchambered long barrows and long barrows with stone chambers	
ii	100,000	Early Neolithic causewayed enclosures	Windmill Hill (estimated at 12000)
iii	1 million	Later Neolithic henge monuments, of diameter greater than 600ft	Durrington Walls (estimated at 0.9 million)
iv	Over 10 million	Silbury Hill and cursus monuments	Silbury Hill (estimated at 18 million)
v	Over 30 million	Stonehenge III -82 sarsen stones, transported and erected	Stonehenge III

Renfrew identifies a territorial division, noting that clusters of long barrows were associated with a single causewayed enclosure and that this territorial distinction appeared to continue on into the late Neolithic with the location of the large Wessex henges being close to or related to that of the earlier causewayed enclosures (Renfrew 1973: 548). In this respect, Renfrew proposes that the earlier Neolithic causewayed enclosures are evidence of emerging chiefdoms, with the later Neolithic characterised by population increase and a developing social hierarchy centred at henge monuments representing full-scale chiefdoms (Renfrew 1973: 551). There are some causewayed enclosures that Renfrew notes do not have a corresponding later henge; these include Knap Hill and Whitesheet (1973: 459). He considered the construction of these large monuments, which demanded ever increasing

man-hours, as evidence for social centralisation and hypothesised that the early Neolithic causewayed enclosures acted as central meeting places for dispersed communities, whilst the development of henge monuments and large concentrations, such as the Wessex monuments, were a result of an increasingly centralised society where power was concentrated into a few figures within the community (Renfrew 1973). Renfrew (1973) considered the power to be held by chiefs, who were supported by priests and craftsmen, in a pyramid of power-roles based upon an analogy of anthropological social evolution models (for example, Polynesia).

In this way, large monuments acted as symbolic and ideological central places (*ibid*), as well as fulfilling their functional roles for the community. This development of social structure suggests a hierarchy within later Neolithic societies, with the elite controlling many aspects of everyday life, including managing the economic activity for the benefit of the entire community. Renfrew used the spatial distribution of these monuments to argue for the increasingly centralised community of the later Neolithic (*Figure 11*). The large earth and timber structures of Later Neolithic Wessex were fewer in number than earlier Neolithic monuments but were (mostly) much larger and appeared to be grouped into distinct areas: the Avebury region, Salisbury Plain, Cranborne Chase, and Southern Dorset (Renfrew 1973: 548-9). In a later paper, Renfrew defined these later Neolithic chiefdoms as group-orientated and relatively egalitarian (1974: 82) and acknowledged that this was a model that 'like all models its virtue is not that it may be true, but that it is useful' (1974: 73). It has, however, proven to be a model that has been readily accepted and is perhaps overpowering in its use by further authors (Fowler 2013: 75).

Renfrew's study focused on Wessex due to the 'richness' of the available archaeology for the later Neolithic and Early Bronze Age period within this region; this 'rich' data set provided material to support his interpretation that this represented the growing emphasis on the individual and power along male lineages based upon the control of valuable materials (Renfrew 1973). This approach outlined by Renfrew (1973; 1974; 1979) became the conventional model for the study of social change over the Neolithic and Early Bronze Age (Fowler 2005: 111).

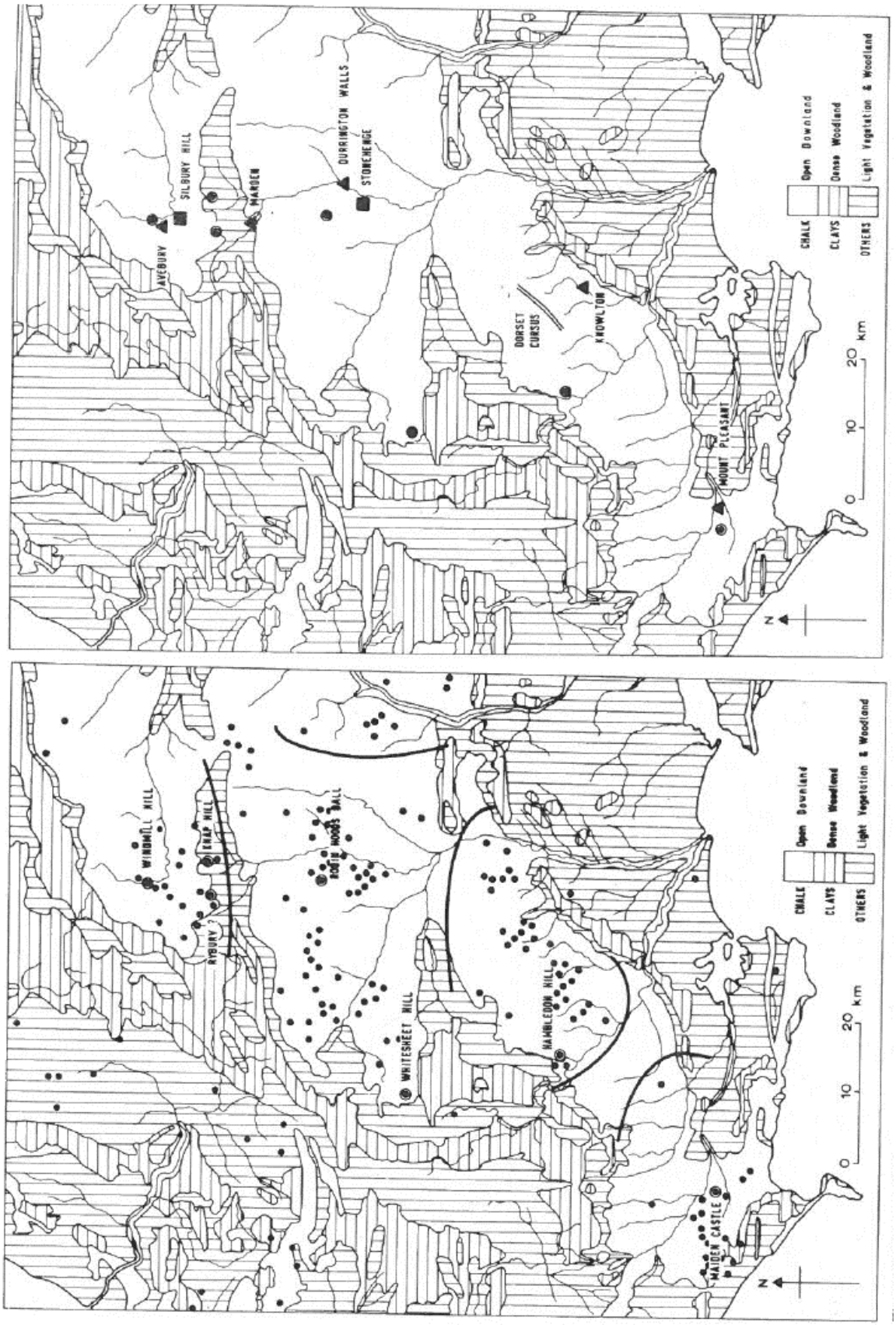


Figure 11: Maps suggesting increasing social organisation in Dorset and Wiltshire. Left: Distribution of causewayed enclosures; Right: Distribution of henges (after Renfrew 1973: figures 3 and 4).

In a paper in 1981, Startin and Bradley disagreed with Renfrew's early work (1973): they concluded that henge monuments represent a much greater investment of manpower than (almost all) earlier sites such as barrows and causewayed enclosures. They argued, therefore, that there was very little evidence to support Renfrew's notion of an increasing control over labour and instead the construction of henge monuments such as Durrington Walls marked a 'radical departure' from the norm (Startin and Bradley 1981; Bradley 1984: 76). They also suggested that the detailed construction and shape marks them as distinctive from earlier earthen monuments and supports the notion that the construction of such sites may have taken place under close direction and coordination (Startin and Bradley 1981). Bradley suggested that the process of growing political centralisation and control is enforced initially through ritual and ceremonial coercion (Bradley 1984: 73), and that the large ceremonial centres such as Avebury in Wessex may have preceded the emergence of elites in the archaeological record, as it is the process of construction and use of the space which played a role in creating such authority (Bradley 1984: 74). In this stance henge monuments are not the result of an increased social organisation, but are an active part of the creation of an elite based social structure. Barrett critiqued Bradley's argument based on his use of analogy with the Minoan sanctuaries of Greece and questioned the idea that forms of ritual display all operate in the same way (Barrett 1994: 28). He further argues that if these monuments were involved in the creation of an elite order, then the mobilization of labour for the construction must have been organised within earlier and different forms of obligation (*ibid*).

Thorpe and Richards' (1984) investigation into social organisation takes a different approach to Renfrew's highly influential work. The authors consider 'ritual authority structures' to be grounded in the use of material culture, such as Grooved Ware vessels, and henge monuments (Thorpe and Richards 1984). This 'ritual authority structure' was based upon ritualised events of a large number of people in which people knew their role or status. This paper contrasted the changes in social organisation in Yorkshire and Wessex. Thorpe and Richards argue that the large number of stone axes and other artefacts in circulation in Yorkshire supports the notion that society worked within a 'prestige goods economy', regularly introducing new objects when others began to lose their value. This occurs in contrast to Wessex, where they consider the position of power to be grounded in communal rituals in order to legitimize control (Thorpe and Richards 1984). This paper suggests the two

models of social power, 'ritual authority structure' and 'prestige goods economy', are mutually exclusive. This mutual exclusivity, however, is questionable as is the structure of Thorpe and Richards' 'ritual authority structure' which is based upon lineage and claims of inheritance, which are often contentious and open to dispute, therefore undermining the idea of a stable ritual authority structure (Fowler 2005: 113). Although different to Renfrew's work in that it does not suggest the *replacement* of types of authority, instead arguing for a shift towards a different model as a response to the emergence of a prestige goods economy, both papers (Renfrew 1973: 79; Thorpe and Richards 1984) argue for the emergence of individuals with increasing personal power (Fowler 2005: 113). For Thorpe and Richards (1984), the henge was the arena in which these ritualised events occurred and, therefore, involved in the creation of authoritative figures; whereas Renfrew saw henges as a result of an increasingly organised community.

Bradley and Chapman discuss the 'centres of social interaction and cultural evolution' within Neolithic Britain and Ireland, by highlighting and describing 'core areas' extending Renfrew's approach to include evidence from across Britain (1986: 128). These core areas are defined as areas that have a high density of artefacts and monuments in the archaeological record, which they identify as: Wessex, East Yorkshire, East Scotland, the Orkney Islands and the Boyne Valley (see *Figure 12*) (Bradley and Chapman 1986: 128). They regard these core areas as the centres of polities, and centres of interaction and exchange. Shared monuments, portable objects and designs act as evidence of long-distance exchange that occurred within these developed centres and which all have a number of ceremonial monuments constructed within the later Neolithic (Bradley and Chapman 1986: 130). They argue that the increase in monument construction does require the organisation of energy-expenditure and suggests an increasingly complex social structure (Bradley and Chapman 1986: 135). They suggest that long-distance exchange is evidence of shared ideas and values that led to local-development of social organisation of the third millennium into a chiefdom-based social organisation, which was characterised by extensive exchange networks within Britain and with areas in Brittany and Spain (Bradley and Chapman 1986: 136). The increase in shared symbols, complex monuments and artefact circulation, they argue, supports a link between ritual and political power (Bradley and Chapman 1986: 136). Areas outside of these core areas, or areas apparently lacking in henge monuments, are considered to have been

home to communities whose socio-political organisation of their society, or the architectural responses to society's needs, did not require such monuments (Barnatt 1990: 6).

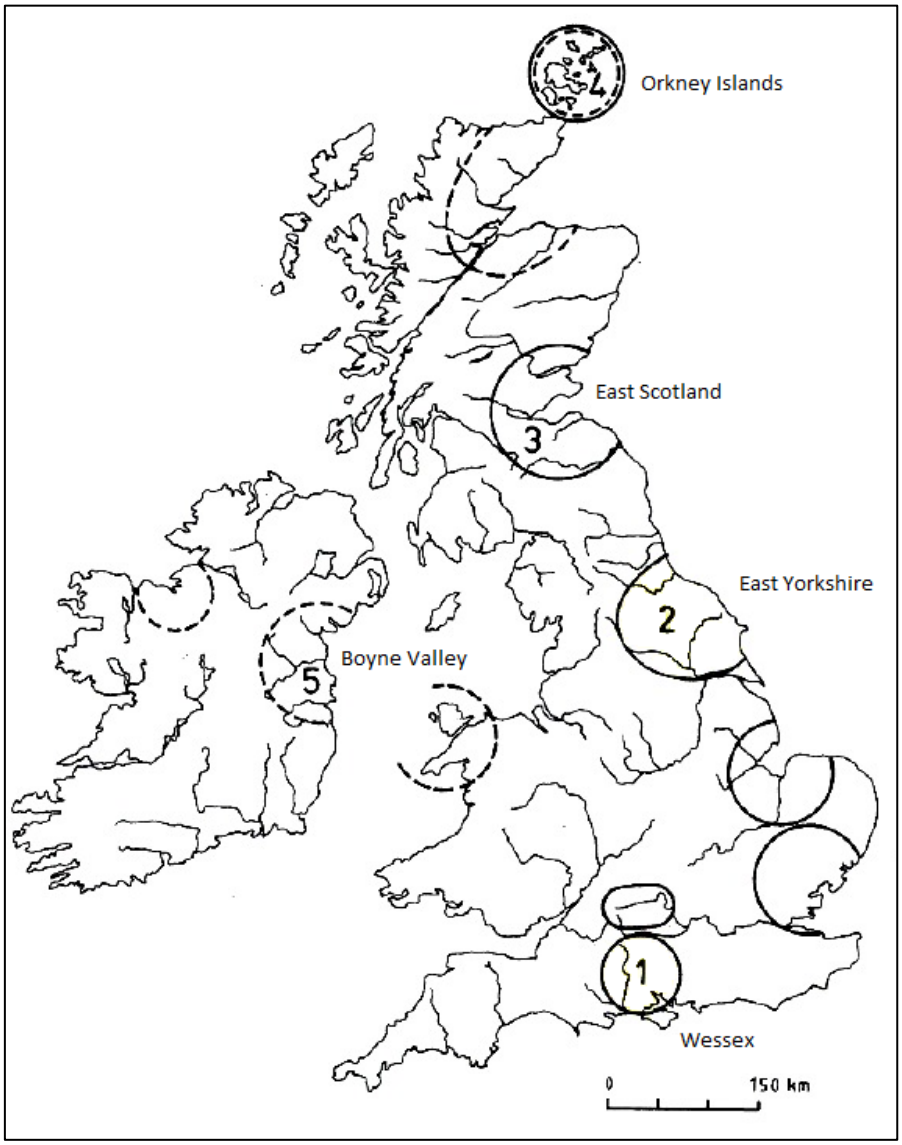


Figure 12: Map showing the 'core' areas: high densities of Late Neolithic monuments and artefacts (after Bradley and Chapman 1986: Fig 10.1)

Timothy Earle, also using spatial distributions of public monuments, maintained Renfrew's notion of the development of a series of centrally organised polities within the Neolithic period in Wessex, but argued that the development of a chiefdom is dependent on the ability of the elite to control warfare, ideology, labour, economy and other 'sources of power' (Earle 1991a: 8-9). For Earle, the establishment of a social hierarchy depended on being able to exclude others from power rather than simply the existence of power sources and being able to control labour (Earle 1991a: 8; 1991b: 71). The monuments of Wessex may have been linked to land ownership and the architecture may have served to create and

reinforce community bonds through activities rather than purely to stress social stratification (Earle 1991a: 7-8). Earle described a change in the character of these large monuments, arguing that henges represented sacred spaces meant to *separate* the elites from the rest of society:

> "*… for ceremonies that fundamentally separated the rulers from the ruled and identified their legitimacy with universal forces outside the world accessible to commoners*" (Earle 1991b: 96).

Through the creation of these large public monuments, often on low hills or ridges, the elite securely connect themselves to the past, ensuring an ideology which strengthens the legitimacy of their position of power (Earle 1991a: 6-7). Earle considers these monuments to have materialised 'a social and ritual landscape that could be owned by those maintaining and defending rights to the monuments' (Earle 1991a: 10). He also proposed that the variation in size seen in the monuments of Later Neolithic Wessex suggest a hierarchy of monument construction representing an increased centrality to the Neolithic community (Earle 1991b: 91). He suggests that the large henges (Mount Pleasant, Durrington Walls, Marden, Avebury and the Knowlton Circles) were all centrally located to their probable polities, whereas smaller henges which dotted the landscape acted as arenas for local ceremonies (Earle 1991b: 91). In this sense, the political organisation of Neolithic Wessex was of multiple competing regional chiefdoms (Earle 1991b: 92). Earle's publication drew on the understanding of chiefdoms as evolving in order to be a solution to ecological and economic problems; in this regard chiefs, or the elite, are viewed as 'tribal bankers' managing the groups economy for the benefit of the entire society (Earle 1991a: 2). Earle does state that the centralisation of such chiefdoms should always be seen as a fragile and negotiated institution which is underpinned by a justifying ideology, concentration of labour and an economic interdependence (Earle 1991a: 13; 1991b: 97).

The views of Renfrew (1973) and Earle (1991b) have been criticized by Thomas, who considers the underpinning concept of power within these two publications as being close to 'sovereignty', which can be described as supreme power or authority (2002: 41). Implicit in Earle's approach is the assumption that power is held by the elite, creating a binary opposition of the powerful and the powerless, or the elite and the commoners (Thomas 2002: 45). Although there is disagreement about the *role* of the elite between Renfrew (1973) and Earle (1991a; 1991b), both argue for power being held by the elite and,

therefore, a divide between the rulers and the ruled (Thomas 2002: 42). Thomas argues that there is no sense of periods of elite instability and instead 'decline' is considered to be a result of population decline as a result of overexploitation of resources (Thomas 2002: 45) despite Earle stating the importance of understanding chiefdoms as always fragile and negotiated institutions in his first paper (1991a: 13). In Earle (1991b) and Renfrew's (1973) approach, power is considered to be in the continuous possession of the elite few with a static hierarchy that is stable and unchanging. These approaches assume that social groups possessed a tradition of common descent and had direct political control over an expanse of land. Any use of these models to understanding small-scale communities within less densely populated regions would be problematic (Harding, J. 2000: 32). These approaches ignore the potentially complex set of relationships between the design and location of an individual henge (*ibid*: 33). Through the investigation and deep understanding of individual sites (or clusters of related sites) particular social strategies may be apparent; sites can then be placed within a wider understanding of similar sites, to discuss the similarities or differences.

This focus on the idea of a Neolithic chiefdom perhaps ignores the complexity of power relations and instead sees power as representing a set of resources that are held and exploited (Thomas 2002: 45). Thomas regards the idea of the large Wessex henges representing the embodiment of institutionalised chiefly power as open to question (2002: 46). It has further been noted that progressivist narratives underpin Renfrew's (1973) and Earle's' (1991b) interpretations, which discuss the emerging social complexity and centralisation, suggesting that societies move from one type to another (Fowler 2013: 74). Such investigations into the evidence for states and chiefdoms typically discuss ambitious elites; however, this separates and removes the majority of people effectively reducing them to the status of 'passive objects', whilst the elite are predefined ahistorical leaders (Robb and Pauketat 2013b: 21).

Change in the monumentality of the British Neolithic has also been investigated by Bradley, in a paper published as part of the same work as Earle (1991a; 1991b) which looked at the changing patterns in British prehistory of Wessex and the neighbouring Thames Valley (Bradley 1991a). Discussing the earlier Neolithic, Bradley highlights the use and construction of long mounds and causewayed enclosures as reflecting the participation of separate communities, which is then emphasized in the segmented layout of these monuments

(1991: 50-51). Furthermore, the peripheral location of causewayed enclosures argues against their perceived role as centres of social territories (Bradley 1991: 50) and instead as places for the meeting of dispersed communities to take part in a range of activities seasonally. Bradley tracks the increasing differentiation in society through the increase of individual graves and burial monuments and the use of causewayed enclosures as defensive and residential sites by 3000 BC (1991: 51). These changes occurred in both Wessex and the Thames valley, but the sites within the latter region were on a smaller scale than those in Wessex (Bradley 1991: 51); the grouping of enclosures and cursus monuments on the river gravels of the Thames also suggest that they did not belong to large social groups. In the later Neolithic (c. 3000-2200 BC) within these regions further differences occur, with the expansion of long-distance exchange and the presence of non-local objects (Bradley 1991: 52). The presence of individual graves is now known to be quite regionalised and seemingly short lived, c.3200-3000 BC, with little evidence of it occurring between 3000-2500BC other than as cremation deposits.

In Wessex there are several large ceremonial sites constructed, whereas Bradley contrasts this to the increased construction of individual burial mounds in the neighbouring Thames valley (1991: 52). The link between henges and decorated Grooved Ware in Wessex is argued to be evidence of groups or individuals capitalizing on their links with distant regions or access to special knowledge, such as the design of ceremonial centres or the creation of Grooved Ware (Bradley 1991: 53). He also suggests that the scale of the Wessex monuments could be indicative of competitive emulation (Bradley 1991: 53).

Bradley agrees with Renfrew (1973) in that the design of henge monuments suggests an organised work force under central direction, thus resulting in the design of continuous ditches and the lack of segmentary construction as evident at the earlier causewayed enclosures (1991: 53). However, Bradley disagrees with Renfrew's notion of continuous growth and instead proposes that the construction of these monuments in the later Neolithic of both regions suggest that communities were acutely aware of the past and locations of existing monuments profoundly influenced the siting of these round mounds and henge monuments (Bradley 1991: 53). This, he argues, is an attempt to legitimize changes in political organisation by drawing on the symbolic capital of monuments from earlier periods (*ibid*). Bradley suggests that instead of being centres relating to the control of

natural resources, that the past itself may have been the symbolic capital that underpinned the increasing social organisation in this period (*ibid*). The main development in this period, for Bradley, is the development of extensive social networks which allowed the exchange and procurement of exotic/non-local artefacts which then occur in graves and at henge monuments (*ibid*: 54). Bradley attempts to consider the Wessex evidence in a wider perspective and suggests that ideology and relations with the supernatural were extremely important within the later Neolithic period. Ceremonial landscapes and burial mounds were constructed around the ceremonial and burial sites of earlier generations, and monuments often incorporated astronomical alignments, linking these sites to the past and the natural world (*ibid*: 64). In this sense the past was the main resource (rather than subsistence or local materials) and territories were controlled by this symbolism of place as represented by the construction of enclosures and burial monuments (Bradley 1991; Earle 1991b). The labour invested in henge monuments does suggest a link between henges and an expression of social identity (Barrett 1994: 27); however, if there is less emphasis placed upon ideas of group exclusivity then these monuments could be considered in relation to social entities which possessed 'spheres of influence' in that there is no political centre or periphery, but instead a complex network of social relationships (Barnatt 1989: 166; Harding, J. 2000: 32).

Literature in the 1990s began considering a phenomenological approach to Neolithic monuments, which argued for the production of power through the control of individual's experience and movement within a monument in order to create a dominant interpretation and discourse. These publications (e.g. Barrett 1994; Tilley 1994; Thomas 1993) argued that interpretation and action were constrained by the architecture (Brück 2001: 652). These papers built upon the view that the later Neolithic was characterised by institutionalised forms of authority, with monumental architecture functioning to produce a vision of timeless social order (e.g. Bradley 1991b, Thorpe and Richards 1984, Richards 1993). Barrett, in his discussion of the Sanctuary, Wiltshire, suggested that the organisation of space within this circular monument served to allow the repeated establishment of distinctions of order (Barrett 1994: 15); whilst Thomas and Tilley considered Neolithic monuments as 'vehicles to legitimize social power and domination' (Thomas and Tilley 1993: 227).

Barrett's 1994 influential publication *'Fragments from Antiquity'* argued for an approach that discussed people as subjects and not simply the objects or monuments as the output of

events (1994: 4). He argues for a movement away from general models of society and the dichotomy of life as lived and the 'history of long-term social institutions' (*ibid*: 3). Discussing the construction of the large complex at Avebury, Barrett argues that the architecture is a material technology and that through the act of construction social relations between practitioners are transforming, and exchanges are taking place (*ibid*: 18). The architecture at Avebury and Durrington Walls was constructed in a form that incorporated and reworked ideas of access, orientation and movement; these features within the architecture could have at times differentiated between the practitioners (*ibid*: 24).

> '*Architectural traditions and the traditions of practice contained by that architecture become two interlocked fields which exchange and transform a common set of symbolic resources'* (Barrett 1994: 19)

Barrett's approach counters Bradley's (1984) argument that these monuments were directly involved with the creation of an increasing social organisation and the creation of elites within society, instead arguing that the large Wessex enclosures were created over many centuries and not as a single planned creation. Influenced by concepts of time-geography, he argues that these building projects resulted in architecture that due to its scale would have a transforming effect on the practices held there (*ibid*: 29). Although henges cannot be assumed to have been built as one planned construction effort, it could be argued that each reworking and each element of architectural construction would have had such an effect, changing the relationships between people and their sense of place. In essence Barrett dismisses the notion that henge monuments reflect the presence of a chiefdom and are instead active in the transformation of social relations.

These publications (e.g. Barrett 1994; Thomas 1996; Thomas and Tilley 1993) discussed how architecture and the demarcation of space can be used to differentiate social personae, but also suggested that architectural phases produced fixed political ordering that could be contested and replaced with the remodelling of the architecture (Brück 2001: 649, 651). Brück highlights that implicit in the literature is the assumption of male figures of power, the adherence to the idea of a fixed political structure and the lack of discussion of alternate realities within the same architecture (*ibid*: 651). Brück continues that within specific architectural phases, a monument can be experienced in several ways, creating a series of 'parallel and crosscutting forms of authority' as opposed to a single dominant discourse within each architectural phase (*ibid*). Using ideas of relational personhood, she suggests

multiple forms of authority which can change dependent on context, which contrasts with the interpretations outlined above that suggest the direct control of subjective bodies (*ibid*: 656).

Thomas suggests a similar approach which argues for a complex development of power relations in the Neolithic that involved changes in the kind of power that was exercised (2002: 45). The early Neolithic monuments can be reinterpreted, not as symbols of power or territorial markers but as places of transformation and occasional gatherings (*ibid*). Causewayed enclosures were occupied and used for short bursts of time, as people moved throughout the landscape, and mortuary monuments can be seen as places of transformation, involving the living engaging and transforming the dead (*ibid*). Thomas describes Early Neolithic society as kinetic, moving around the landscape with animals, gathering, and then dispersing again (2002: 46). This leads him to suggest that power relations in this period would have had 'an ebb and flow' (*ibid*). The Later Neolithic henge monuments of Wessex (Durrington Walls, Mount Pleasant and Marden) were built on a grand scale, with evidence of the consumption of vast quantities of pig meat and the use (and destruction) of Grooved Ware (see Wainwright and Longworth 1971; Albarella and Serjeantson 2002; Cummings 2012). However, Thomas suggests that instead of being evidence for the enhancement of social hierarchy it is possible to see this as fragmentation; contemporary monuments in Wessex (i.e. Stonehenge and Durrington Walls) were being used for very different activities and so conspicuous consumption is not evident at every large henge in the region (Thomas 2002:46). For Thomas, the later Neolithic period involved numerous different practices that involved different monuments, artefacts and locations. This combination of different aspects created contexts in which specific forms of power could be experienced (Thomas 1996: 178-182; 2002: 47). The later Neolithic for Thomas is not characterised by the rise of the institutionalised elite, but instead by 'multiple, unstable, context-specific forms of authority' (2002: 47). In this approach there is no overarching form of power or organisation, and so the types of authority and power exercised within henge monuments, may not have extended beyond the boundary of the monument (*ibid*), and these forms of authority could have differed between monuments of the same archaeological type (i.e. Stonehenge and Durrington Walls). Such post-processual approaches offer different perspectives to monuments and material culture and are useful in

that they are grounded in the notion that sites and objects are involved in transformations and are not static.

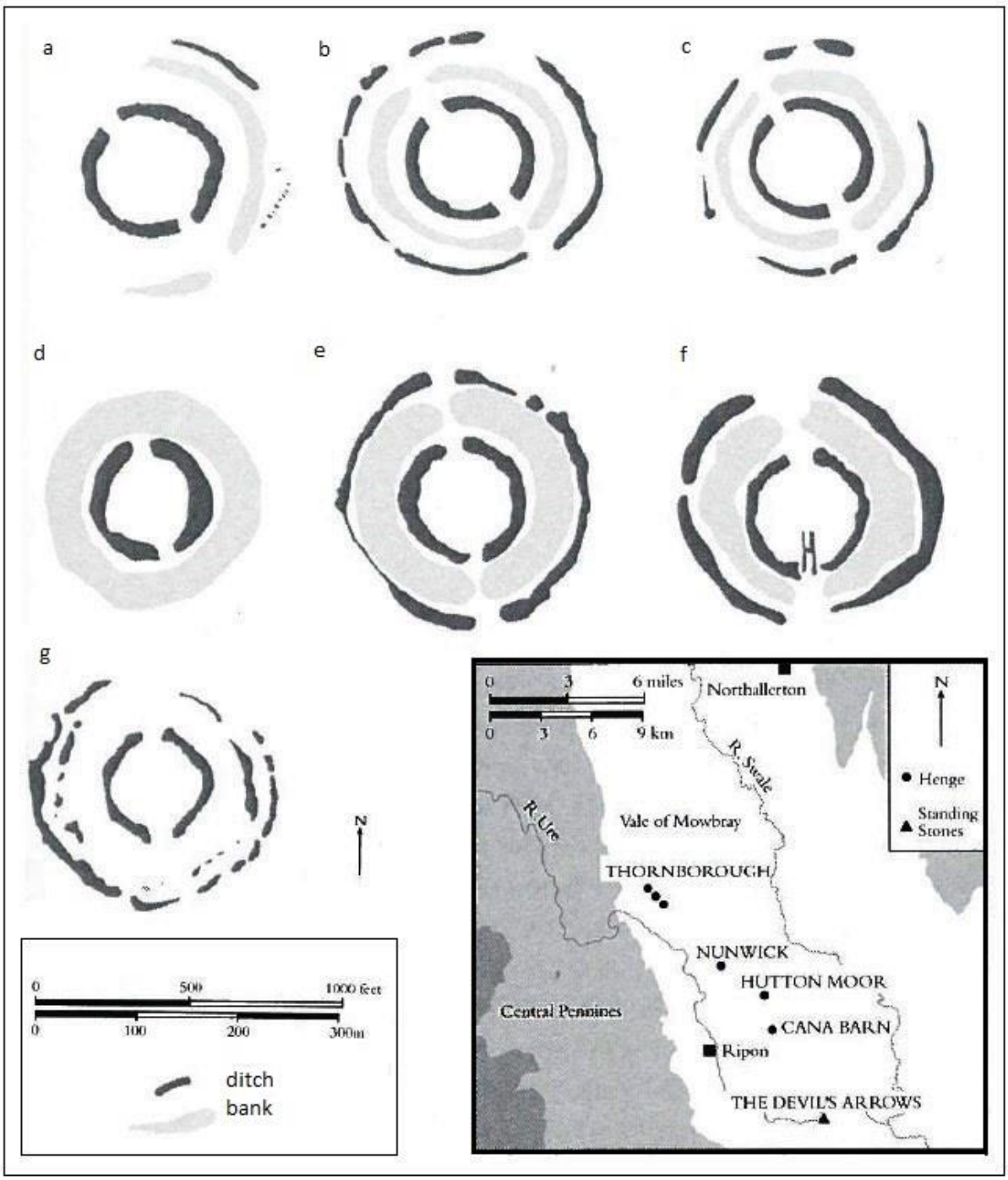


Figure 13: Plans of the henges of Yorkshire, with map (inset) showing the proximity and alignment (after Harding 2003: figures 65 and 71).

Harding also considers the appearance of henge monuments alongside other fundamentally new types of material culture, including Grooved Ware and prestigious stone and flint objects, to represent fundamental social change in the third millennium (2003: 9). He questions, however, whether the assumptions are too simple. Regarding henge monuments

as evidence for a new set of religious beliefs and practices controlled by a specialised 'priesthood', or as the product of a centralised form of political leadership, infers that the monuments represent a transition to a different and more complex form of society which was stable and that these monuments were continually built and used throughout the period (Harding 2001: 9). Through the investigation of Yorkshire, which highlights the regional traditions inherent in henge construction, Harding highlights the problematic nature of linking such monuments to social organisation. The Yorkshire region has a concentrated area of henge monuments, with six lying along a 12km stretch of the river Ure (Harding 2003: 87).

As is evident from *Figure 13* above, these henges are similar in plan and size and are closely grouped along the course of the river Ure. The large and consistent size of these henges and their proximity to each other does not fit within the 'chiefdom' model proposed by Renfrew (1973). Similarly, the two large henges of King Arthur's Round Table and Mayburgh in Cumbria are sited within a short walk from each other: this argues against the model proposed by Renfrew as discussed above.

Contrasting with the earlier publications, it is becoming evident from the regional variation that a clean 'fits-all' model does little to aid our understanding of Neolithic social structure. Fowler suggests that Neolithic communities were an amalgamation of social positions that 'many found it a struggle to occupy' (2005: 113). The construction of monuments, the organisation of gatherings and feasts were a vital part of this struggle (*ibid*). This highlights the dynamic and contextual significance of status and authority, seeing it as temporary and vulnerable rather than static and unchanging (Fowler 2005: 114). Taking this approach, it can be considered possible that social structure and the positions of power may not, then, be under the control of consistent hereditary elites, but rather changeable and 'ad hoc' throughout each period (*ibid*).

The emphasis placed on the link between henges and social structure is intrinsically linked with the general literature on monumentality that discusses the pyramids, ceremonial enclosures and massive ceremonial mounds constructed by highly centralised societies like the ancient Egyptians, Polynesian chiefdoms and in the Aegean (Harding 2013: 8). Such examples are clear markers of social centralisation and control of labour: monuments acting as expressions of social power and representing the reversal of 'the principle of least effort'.

This principle can be argued to govern most aspects of social life; although this has been criticised as being highly western ethnocentric (Trigger 1990: 122; Harding 2013).

In such models as Renfrew 1973, henges and Grooved Ware can be seen as 'type-fossils' to suggest continuity and conformity for the later Neolithic of Britain towards the end of the 3rd millennium (Needham 2012: 1). In this paper discussing the case for a *British* Chalcolithic period, Needham highlights the key aspects of late Grooved Ware and Beaker 'culture groups', explicitly stating that social structure was increasingly hierarchical (Needham 2012: table 1.8, p.19). This structure was founded upon ritual authority and is characterised by the separation of participants at henge monuments and processions (*ibid*). Whilst the introduction of beaker pottery and associated material culture is argued to highlight the start of the British 'Chalcolithic', it is highlighted in this paper that there was not a sudden introduction of new monuments, and that henges continued in use with sites often having an earthwork construction date within this Chalcolithic or Early Bronze Age period (Needham 2012). Needham concludes that although the emergence of Beakers, and the Beaker 'culture' in Britain, can be attested to at ceremonial sites such as henges, it is also clear that this did not change or alter the monument tradition towards a new direction (2012: 21). Authors have often relied on analogy to suggest a hierarchical social structure that is difficult to argue for without such comparative material. Such a view diminishes the importance of community and communication – perhaps a hierarchical system is a simplistic view, and more focus should be given to the idea of groups working together.

Sheridan (2012: 41) regards the later Neolithic as characterised by its insular dynamic, involving the communication of widely spaced communities and the use of shared practices and material culture, such as Grooved Ware (see Cleal and MacSween 1999). The creation of such large monuments in Wessex was related to 'escalating conspicuous consumption' in monument construction, which may have involved the temporary agglomeration of a large number of people (Sheridan 2012: 41). Sheridan suggests that society would have been ranked with temporal authority to control and instruct such a large body of people being based upon the control of communication with the 'otherworld' of the ancestors or the gods (*ibid*). Symbols of power which are associated with this system are also related to cosmological beliefs: these included both objects and imagery (*ibid*).

The social organisation of the later Neolithic of Britain and Ireland has been considered as a gradual and changing system, with authority temporal or associated with specific controls or events (Needham 2012; Sheridan 2012). The picture painted contrasts with Renfrew's (1973) early model of social organisation of Wessex from the Later Neolithic into the Bronze Age as distinct types. In the case for a British Chalcolithic, these authors (Needham 2012; Sheridan 2012; Cleal and Pollard 2012) highlight the less than clear distinction between the period of Grooved Ware use and henge construction and the introduction of Beakers and the related artefacts and practices. Certainly, it is clear that henge monuments were being constructed into this period and are not specifically a Later Neolithic phenomenon but continue to be used and constructed into the 'Chalcolithic' and Early Bronze Age (Bradley 2011b; Cleal and Pollard (2012). Cleal and Pollard (2012: 20), and Sheridan (2012: 41) both consider the emergence of henges, timber and stone circles, palisades, Grooved Ware and the associated material culture, as evidence of the emergence of different structures of social power within the later Neolithic.

Central to the arguments in the 1970s and 80s (e.g. Thorpe and Richards 1984; Renfrew 1973; Bradley and Chapman 1978) is a fundamental connection between land, ancestry and labour: the investment of labour effectively makes claims upon the land that are then maintained and controlled by lines of descent (Fowler 2013:85). Although acknowledging that objects and monuments are manipulated ideological and competitive statements, papers during this period argue that the control of specific events or locations or the accumulation of exotic goods leads to overall control and status (*ibid*: 86). Whilst figures with specific forms of authority at specific events and locations, similar to 'chiefs', is a possibility within British prehistory, it is important to be aware of what is meant by the terminology; 'we should be wary of reifying societies as members of a certain 'type' or as being at a certain 'stage' of development' (*ibid*: 76). These approaches all divide and define groups, effectively creating lines and boundaries of transformations in time. Fowler argues that phenomena gradually emerged through repetition and that it is through the study of such processes that we name them as distinct phenomena (2013: 260).

Currently it seems that some authors opt for models of ritual authority and hierarchical elites (e.g. Sheridan 2012), whilst others view organisation as changeable and fluid (e.g. Julian Thomas). The literature highlights the complexity of society and contrasting

perspectives among archaeologists. Power as being contextual and temporal, with social status ever-changing, dynamic and relational is convincing, and considers the active participation of all individuals. Social organisation can be considered as consisting of many spheres with positions of power being held by different individual groups depending on the location and the event. The rise of relational theory has argued for a move away from such progressive and dichotomy led interpretations of 'big histories', and instead towards the view of humans as integral parts of relationalities and not as subjects or objects. History is seen as the 'networks that intersect' which involve 'relations between people, things and ideas', and these generate from structural processes whose patterning is evident at different scales (Robb and Pauketat 2013b: 28). This approach does not aim to reduce sites to typologies or classifications and instead proposes that we think differently about the complexity of change and time. Recent publications have, however, focused on moving beyond these standard types of political forms, and instead focused on alternative possibilities through the use of ethnographies and concepts, such as heterarchy (e.g. Crumley 1995; Thomas 2002; Kienlin and Zimmerman (eds) 2012).

3.4 The interpretation of henge architecture

Enclosing a space has the function of defining the interior and segregating it from the outside, creating two distinct areas. The distinctive form of henges, with an internal bank and external ditch, represents a clear emphasis on the importance of defining interior space within the landscape in the sense that architecture acts to create two distinct spaces, inside and outside the monument.

Banks and ditches are common characteristics of defensive earthworks; however, the layout generally uses an external ditch in order to face threats from the surrounding land, offering protection to the people within the enclosed area (*Figure 14*). Conversely, a bank with an internal ditch seems to reverse this idea by facing inwards. It can be argued from this that henge sites were considered as dangerous places, where spiritual or supernatural threats needed to be contained (*Figure 14*; Bradley 2011a: xvii). This is certainly the view taken by Warner in 2000, when discussing Iron Age hengiform sites and medieval mythology preserved in old Irish texts. In this paper he argues that the internal bank was meant as protection from spirits within, confining them to a specified space where communication can be facilitated by people crossing the causeways into the hengiform (Warner 2000). Although specifically basing this interpretation on Iron Age earthworks and lasting traces of

mythology, Warner 2000 does suggest such an interpretation could be relevant for earlier monuments and a similar interpretation for henge architecture within the later Neolithic and Early Bronze Age, as discussed by Bradley in *Stages and Screens* (2011b).

The use of banks and ditches can mimic natural boundaries such as hills and valleys or even the horizon, and in doing so act as a microcosm. From within the boundary, the land beyond the horizon can be seen in a different light (Gibson 2012a: vi). This area could include different landscapes, people and perceived or real dangers (*ibid*). Within, the horizon is likely to have been perceived as the boundary for 'living space', and so smaller spaces were defined and marked out for those sacred acts and uses with more restricted access (*ibid*).

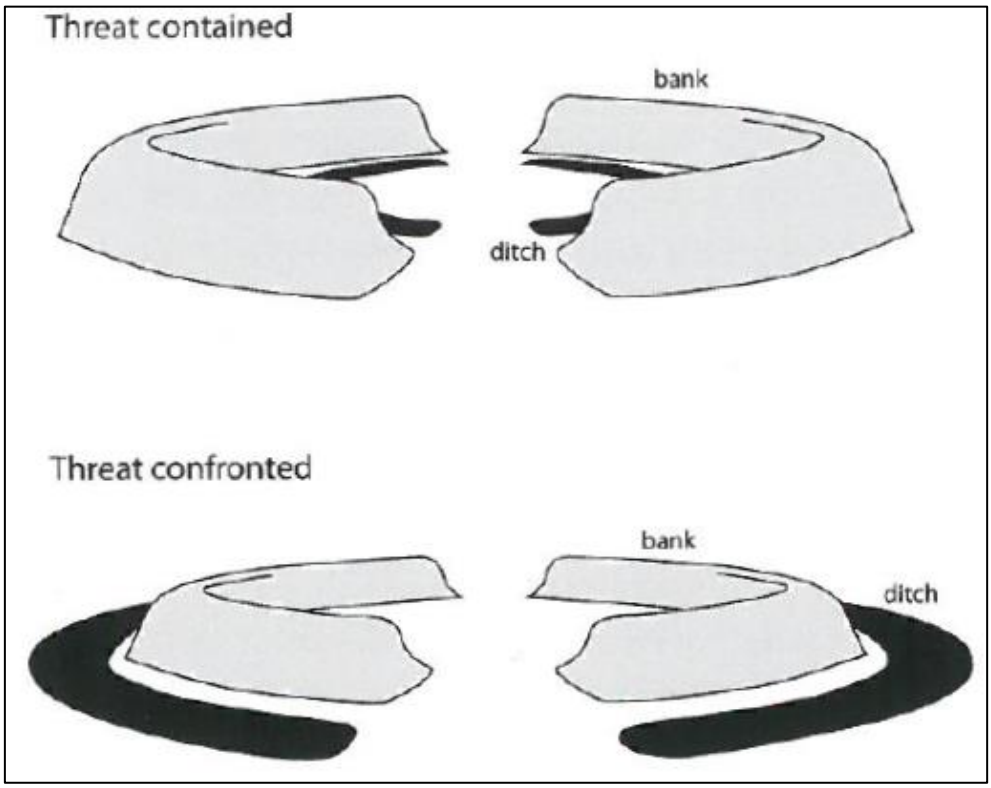


Figure 14: The different characteristics of an internal and external ditch (Bradley 2011b: illustration 0.2)

The use of an internal ditch contrasts from previous monuments and so single out henges as unique - they reverse the common configuration that can be seen in other Neolithic monuments; this highlights the important nature of these sites, inverting a pattern seen in other aspects of daily life and marking it out with a special character (Bradley 2011a: xviii).

St George Grey noted that banks with an internal ditch serve to exclude and define activities within the inner area but allowed the possibility for large numbers of spectators to witness these activities (Grey 1935: 161). The elevated ground acted as a viewing platform, whilst

still respecting the segregation caused by the interior ditch. Clark concurs with Grey's analysis in his 1936 paper on Arminghall, noting that although not very high, the bank would have been broad and prominent in its original state. He assumes a ceremonial or sepulchral function for the enclosure based on its lack of funerary evidence, internal ditch and the labour invested into its creation; he states that limited individuals would have been allowed access to activities within the sacred inner area, whilst onlookers could have had access to the activities from the bank (Clark 1936: 26). Building upon this notion – if the interior is seen as a viewing area this presents the idea of the viewers kept at a distance from those involved in the activity being performed. This could certainly be a plausible use, but not, I would suggest, the reason behind constructing the bank. Sites with double circuits would create a further ditch and bank, and so the creation of banks for the sole purpose of creating a viewing platform is not supported by these sites. It is likely that banks were built to control views of the internal area within and this would guide visitors to move towards the entrance to see within; banks also work to control the views of the wider landscape from the interior. The chronology of an individual site is also important in this investigation, as banks are unlikely to be viewing platforms if their construction occurs after a long period of activity on the site. It seems more likely that the bank and ditch were constructed as a project, and in doing so defining a space and controlling the view.

Evidence of depositional 'events' within the structure of a bank, such as those evident at Marden, Avebury and Woodhenge, suggest that dismissing the bank as merely a viewing platform is reducing the significant of its construction. The banks of henge monuments contain the evidence of previous uses, visits and interactions and in effect act as a 'material biography of the community' (Leary and Field 2012: 63). The unusual form of the Marden henge, and the inclusion of material culture from phases of activity within the bank structure, could suggest that the material of the bank is in fact more significant than its shape, which would challenge our notion of a henge as an 'architectural blueprint' (*ibid*).

Although Atkinson (1951) and Piggott (1939) seemed to acknowledge that the placement of the ditch within the bank discounted a defensive function, they failed to discuss the possible significance of the placement and digging of a ditch and what it may represent. Indeed, Atkinson did not class the ditch as a characteristic feature of a henge and saw it as little more than the quarry for the bank, where the land allowed such quarrying (Burl 1969: 3).

During the creation of an experimental henge in Liverpool's Ness Botanic Gardens in 2008, the investigators highlighted how quickly the ditch flooded during the winter, leading them to question whether this was a purpose of the ditch, as a source of water or serving a cosmological function (*Figure 15*) (Hill 2009). The cosmological importance of water as a natural element is discussed in Richards (1996a), and the close relationship between rivers and henges as well as other prehistoric monuments is well documented. There are also examples of low-lying henges such as the Milfield sites, which are on gravel, and the reconstruction henge at Maelmin nearby which is rarely seen to have standing water.

Figure 15: The ditches filled with water as a result of the weather of a British winter at Liverpool 'Ness Henge' experimental henge (modelled on Stonehenge – hence the external ditch) (Hill 2009: figure 5)

The circular form of henge monuments has also been argued to reproduce or reflect the surrounding topography and represent a microcosm of the surrounding landscape (Richards 1996a; 1996b; Bradley 1998a), however this is difficult to assess for all sites, due to a lack of survival of the bank. The architecture of henges has received a wave of focus due to the regular internal placement of the ditch and the lack of protective qualities of an external bank. This thesis will assess the regularity of henge forms and aim to address the idea of use and meaning behind this layout. Whilst banks were unlikely to be used as viewing platforms, they manipulated the movement and experience of people viewing and using the space.

3.5 Interpretations of the function of henges

This section outlines the previous literature and interpretation of how henge monuments were used. It follows on from the section above that highlights how the construction of henge monuments have been considered as events and symbols of increasing social power, but the continued use of these sites suggests a large variety of functions and elaborations once built.

3.5.1 Astronomy and alignment

Henge sites are often regarded as intrinsically linked to the movement of the sun; this can be emphasised by the importance placed on the solstice events at Stonehenge. Although a circular shape allows many alignments, it has been repeatedly argued that this was a deliberate architectural association for monuments of the 3rd and 2nd millennium BC. Early publications explicitly compared the circular monuments of Britain to the Egyptian temples, arguing that the circle represented advanced astrological knowledge (Lockyer 1909: 222). Although progressivist and reductionist in its approach, articles like this exemplify the early understanding of solar alignments with circular Neolithic and Bronze Age earthen and stone monuments.

These views suggest that the sun and moon were being observed during this time and that regular movements of the sun were seen as being intrinsically linked to, and a part of, the landscape. The rising and setting of the sun are observed against the horizon and so the two cannot be separated (Gibson 2012a: vi); in this sense it has been suggested that during this moment one can observe the meeting of the 'heavens' and the earth and that such an instance was viewed with such importance that monuments were built to facilitate its observation (*ibid*). Studies of stone and timber circles have also argued for their association with solar alignments, observations and calendrical functions (Gibson 2012d: 344-345). The association of Stonehenge and the solstice is well documented, and similarly the henge at Arminghall was found to be aligned on the setting of the midwinter sun, which also aligned with a visible feature in the headland (Beex and Petersen 2004). In order to understand the regional variation in orientation, it is argued that alongside solstices and prominent landscape markers, the rising of specific star constellations from the horizon could account for such variation (Loveday 1998: 30-31).There are, however, many sites which reference nearby river courses or routeways, or otherwise have no solstice alignment (e.g. Milfield, Thornborough - discussed in detail in *Chapter 7*).

3.5.2 Ritual, religion & ceremony

Kendrick's original definition of a 'henge' was based upon a functional observation: he deemed all sites included in his catalogue as 'sacred places' which were not associated purely with burial (Kendrick and Hawkes 1932: 83). He based his definition upon sites sharing a common function of providing an area for a meeting place or a 'temple' (*ibid*). This first linked these sites with a ceremonial or religious function. Atkinson talks of the 'silent' evidence for the function of henge monuments, however, he states that it was 'generally agreed' that they served a non-utilitarian purpose although the nature of the rites, and 'their implications for social and religious organisation of society' remained obscure (Atkinson 1951: 89).

By the late 1960s the function of henge monuments was considered to be as a place for ritual practices and non-utilitarian purposes (Wainwright 1969: 116). The difficulty in such an interpretation, Wainwright states, is that 'our concept of which [non-utilitarian purposes connected with ritual practices] lies beyond the limitations of archaeological inference' (*ibid*). Renfrew's interpretation of social organisation also built upon the notion that henge monuments were the centre for the social, religious and economic life of a chiefdom (1973; see above). Earle stated that the variation in the size of henge monuments can be explained as representing a hierarchy of importance and ceremonial construction (Earle 1991b: 91). This suggests that sites within this bounded social entity had different roles (Renfrew 1973; Earle 1991b). Durrington Walls, with its house-like structures, has been considered by Mackie (1977) and Burgess (1980: 362) to be a settlement of religious leaders or 'astronomer priests'.[2] Mackie argued that Grooved Ware was a status symbol and that the users were a 'theocratic governing class' skilled in astronomical observations, whose sanctuaries were the Wessex henges (1977: 213). Catherall compares the evidence for activities within causewayed enclosures and henge monuments, and suggests that feasts and ritual meals taking place within henges had their origins in the large episodes of consumption at causewayed enclosures (1971: 152). Catherall refers to the feasting events evident within some henge monuments as seeming to have formed part of the religious practices connected with these sites (*ibid*). Bradley in '*The social foundations of prehistoric Britain' (1984)* summarised the evidence for henges playing a significant role in ritual

[2] The house-like structures considered by Mackie (1977) were based upon the Southern circle. The extensive settlement which has since been uncovered was unknown at the time of Mackie's publication.

activity; he concluded that they were large scale projects placing high demands on human labour and were generally sited near earlier, rather than more contemporary, burial monuments (1984: 79). Archaeologists began to consider the wider landscape as an aid to interpretation in the late 1980s, and a number of papers have been published that investigate the setting of monuments within the wider landscape and its natural features (e.g. Parker Pearson and Ramilisonina 1998a; Richards 1996a; 1996b) - these studies tended to re-affirm the interpretation of henges as the foci of ritual activity due to their positioning within the landscape (Gale 2012: 161).

Sacred architecture often has a role in structuring the experience the visitor (or 'worshipper') has; this can be achieved by controlling movement and diverting the gaze to specific areas of interest - and these traits can be seen within some henge monuments. The creation of an earthen bank that runs continuously apart from one or two breaks, blocks the view of the surrounding horizon, creating a small area that draws the gaze upwards or towards the entrances. Furthermore, an internal ditch further reduces the area within the bank, and creating a clear barrier and a sense of isolation; this can be seen as delineating and lifting a sacred or important area from the landscape to emphasise its difference.

Harding has argued for the religious nature of these monuments in an analysis of the Thornborough monument complex in Yorkshire (2013). For Harding, monuments serve to express and recreate ideology, with the monument and the immediate landscape 'where beliefs were most fully represented, articulated, and negotiated' acting as a focal area for spiritual power or energy (Harding 2013: 8, Jones 2000: xi). The distribution of surface finds suggests a distinction within the landscape and that activities which were associated with the monuments on the plateau may have been highly ritualised – 'consciously involved rule-bound, prescribed, repetitive and archetypal references to cosmology' (Harding, J. 2000: 41).

3.5.3 Procession & Pilgrimage

Richards discussed how water was a component in the architecture and symbolic constitution of henge monuments. He argued that there is a clear relationship between henges and rivers, which provides a metaphorical conjunction between the movement of people into and/or through the monument, and the flow of water (1996a: 313). This association between henges and waterways is suggestive of a relationship between lines of movement and communication in the Later Neolithic. The exchange of stone axes has also

been considered to be linked to these routeways (Bradley 1984; Harding 2013) with henge monuments *perhaps* acting as 'secondary distribution centres' or locations from which the movement of such prestige items could be monitored (Bradley 1984: 53-55). The importance of these alignments and associations with physical movement of people can be seen within the monument complex at Thornborough. The entrances to the henge monuments at Thornborough are all aligned upon each other within a low-lying plateau along the river Ure. They also lie adjacent to the change in topography from the low-lying area to undulating foothills (Harding 2000). This site lies on the likely exchange routeway for Group VI axes from Cumbria into the Yorkshire Wolds, as the most accessible passage across the Pennines following the River Ure (Harding 2000: 42). To further support this interpretation, the henges of Nunwick, Hutton Moor and Cana Barn all lay within 10km of Thornborough and are all almost identical in their design, orientation and size (see Figure 13) (Harding and Lee 1987: 304-308; Harding 2000: 42). Recent research by Bradley and Watson (2016) however, has suggested that the quarries were in use much earlier than originally thought and that the association between henges and this routeway is one of commemoration of the past, whilst earlier irregular enclosures and rock art sites were contemporary with the movement of goods.

Double entrance henges appear to be a distinct group within many contrasting classification attempts, with a typically ovate shape elongated along the axis created by the opposed entrances, which serves to emphasise asymmetry (Loveday 1998: 14). Loveday considers the layout of these double entrance sites to quite clearly suggest that this significance or use was in passing through them, with elaboration and specific acts such as deposition or fire lighting happening in the ditch terminals (1998: 17, 25). Investigating many class II henges, it appears a large number have a similar or parallel alignment to nearby roads and railways, suggesting that the routeway through the monument was determined by the topography, however, this pattern is not universal throughout all double entrance henges (Loveday 1998: 21). Loveday argues that a similar pattern can be observed when comparing the alignment of entrances with the directions of nearby Roman roads: 77% of Harding and Lee's classic and double entrance henges are within 5km of a Roman road (Loveday 1998: 21). This perhaps argues for known paths and routeways that were in use continuously throughout prehistory, which were then formalised with the introduction of Roman single lane roads (*ibid*: 24). This, it was argued, is linked to a ritualised control of the trade and exchange of axes by ritualised

pathways within architecture, and which excludes those outside it (for original axe trade interpretation see Bradley and Edmonds 1993). Bradley further suggests that several henges are sited in strategic positions, on or beside routeways, from the lowlands towards the axe quarries; examples include Mayburgh and Catterick which appear to be paired on either side of the Pennines (Bradley 2007: 134-135). Sherratt also reasserted that the riverine locations of the large Wessex henges were based upon ritual control of established transport links (1996: 220-22). On the other hand, Loveday suggests that the winding upper reaches of rivers, such as the Avon, perhaps do not represent a favoured routeway, and that henges could have performed similar functions of control as the later hillforts in the same region but that the movement that they were directly associated with was over land rather than by water (1996: 30). This alternate view does not, however, dismiss the significance of water within this period but argues that its association was not primarily a functional one for movement of people or goods; similarly, there is a link between routeways and water sources that can be considered functional, particularly if moving with herd animals, which may compliment both of these interpretations. Although a basis for understanding the design and placement of double entrance henges within the landscape, Loveday highlights that henges would have fulfilled many functions, including but not limited to ritual, exchange, trade, ceremonies and large meetings of societies (1998: 30).

There is no clearer example of a processional landscape than that of Stonehenge: the relationship between the nearby sites of Durrington Walls and Stonehenge are physically linked through avenues leading to the river Avon. Parker Pearson has discussed the movement of people through the Salisbury plane travelling from areas associated with the living through to a 'domain of the dead' (*Figure 16*; Parker Pearson and Ramilisonina 1998a; 1998b). The large henge at Durrington Walls encloses an area associated with settlement, timber circles and feasting and is linked to the Stonehenge avenue by the direction of the river. Through an analogy with contemporary Madagascan views of life and death associated with materials and space, Parker Pearson suggests that the Salisbury plain is divided based on its use of materials (*ibid*). *Figure 16* shows the interpretation that suggests a physical separation between areas associated with activities of the living, and the deposition and celebration of the dead.

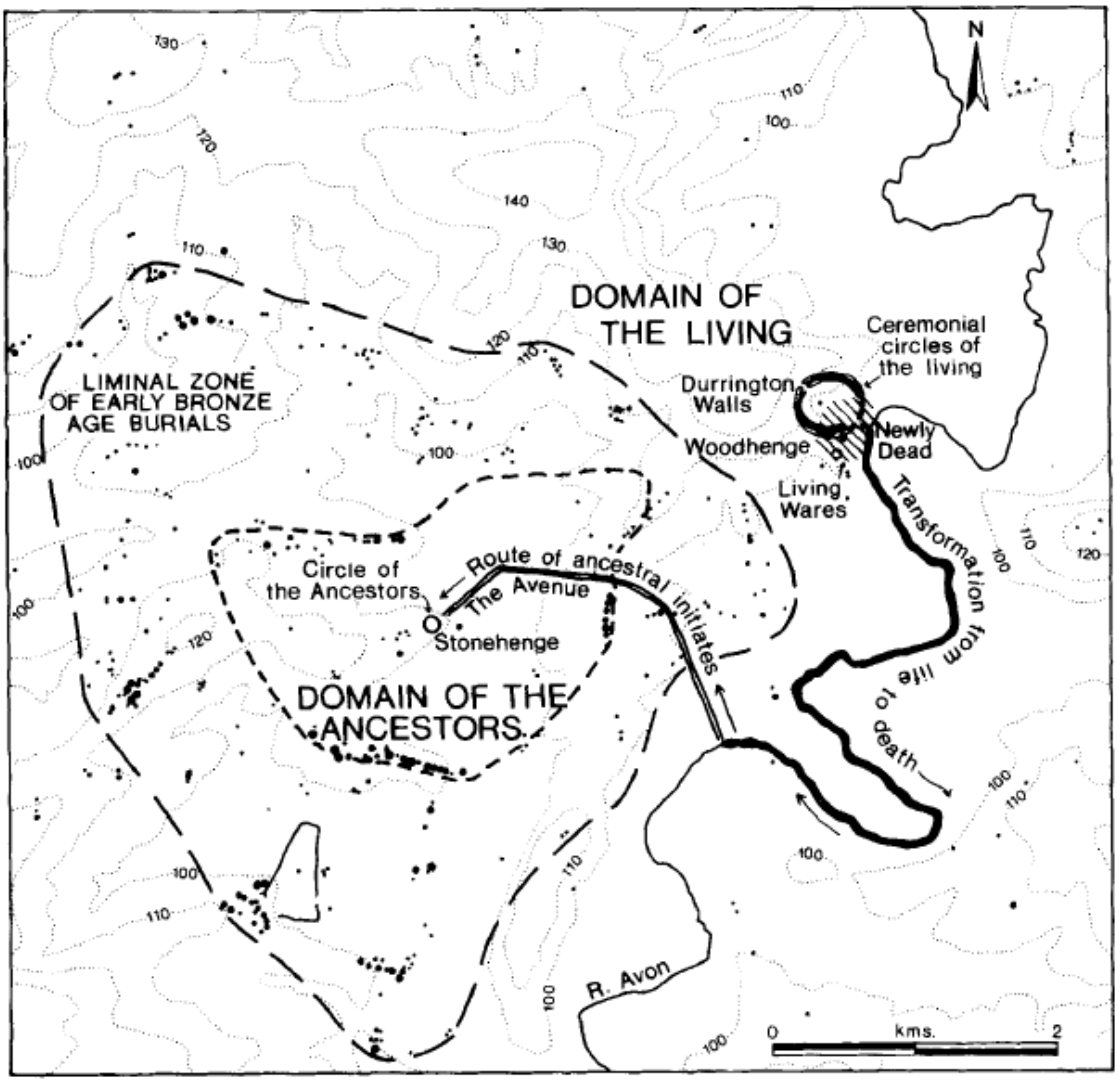


Figure 16: Interpretation of the Late Neolithic-Early Bronze Age landscape around Stonehenge (Parker Pearson and Ramilisonina 1998a: Figure 7)

Whilst further excavations within the area have shown that there are further sites to be considered (e.g. Bluestonehenge, and Bulford on the opposite side of the river), the argument remains dominant within the literature (e.g. Parker Pearson *et al*. 2008; Willis *et al.* 2016). The River Avon winds through the landscape, connecting the enclosure at Marden to the Stonehenge landscape. Marden henge is an irregular enclosure, consisting of lengths of straight but conjoined ditch circuits. To the south of the enclosure ditch the River Avon meanders creating the final part of the enclosure circuit. The importance of the river is clear from the discovery of a surface of gravel deposits which, when extended, would project down to the river (Leary and Field 2012: 59). This is comparable to the gravel routeway discovered at Durrington Walls leading from the entrance to the river (Pollard 2012), suggesting a routeway that would take visitors on a journey through Marden henge, down

the river to Durrington Walls, before continuing towards Stonehenge via the avenue (Leary and Field 2012: 59).

The notion of pilgrimage has been discussed by many authors (e.g. Wainwright 1969; Loveday 1998; Harding, J. 2000; 2012; 2013). Pilgrimage studies suggest that sites of attraction are often the key places where religious belief and ritual action are played out, and commonly pilgrims travel to a place separated from the outside world in order 'to seek something which lies outside the accustomed patterns of everyday life' (Reader 1993: 9-10; Harding 2000: 43). Loveday has noted that sites along a typical pilgrim route have a tendency to closely resemble each other, in an attempt to replicate the key site or centre of worship (1998: 26). The repetition of the form of the Yorkshire henges along the same routeway is perhaps understandable when considered as an area of pilgrimage (Harding 2000: 43). Harding extends this to suggest that the differences in the layout of henge monuments may reflect different forms of ritual power or spiritual energy that they are associated with, and not necessarily associated with individual social groups (*ibid*). If Neolithic society is considered as a series of overlapping social links, which would account for the variation and distribution patterns of Later Neolithic Monuments (Thomas 1996: 178-181; Harding 2000), then henge sites can be considered to have different functions and social interests. Harding acknowledges the variety within henge layout and suggests that some may be concerned with the history and mythology of particular communities, whilst some, such as at Thornborough, may have been associated with a 'sacredness' and could be described as cult centres or places of worship (Harding 2000: 44).

3.5.4 Burial

Kendrick's original publication stated that henges were not of a purely burial function, but that there is evidence for the incorporation of burials and human remains within them. This is a view that is repeated throughout the literature - that henges did not have a primary sepulchral function (e.g. Kendrick and Hawkes 1932; Atkinson 1951). The presence of burials was considered a result of these monuments already being understood as sacred:

> '*Once it is granted, as it must be, that the henge monuments are sacred places, it need cause no surprise that burials are found in them, for the place of the cult of the dead in primitive religions needs no stressing*' (Atkinson 1951: 89-90)

Although some sites do not include evidence of a primary funerary function, there are examples that do suggest burials were related to earlier phases of activity, whilst others are

often closely associated with other funerary monuments in the immediate vicinity (this is discussed further in *Chapter 6*). Barrow groups often cluster near such sites as well as avenues linking sites via a monumentalised pathway (Clark 1936: 26-27), although there is the question of sequence with inferences like Clark's, who assumes the construction and use of each monument within the same time frame. At Arbor Low the burial of an extended male skeleton was uncovered in proximity to the central area, and at Woodhenge there is a grave containing the skeleton of an infant with a cleft skull, which was dug across the path of the midsummer sunrise (*ibid*). Clark, however, suggests that rather than the monument being built to commemorate the burial of the individual, and be a 'large tomb', it is possible that these burials acted as consecration of the site. He suggests for Woodhenge that the burial of an individual with an obvious violent injury is strongly suggestive of a sacrificial rite, as consecration by human sacrifice occurs widely around the world (*ibid*).

Atkinson recognised that cremations are present within a number of class I henge monuments, including Dorchester I, IV-VI, XI and Stonehenge, where the concentration of multiple cremations have been argued to be communal cemeteries (Atkinson 1951: 90). Cremations have also been excavated within the henge monuments at Llandegai; however, Wainwright also suggested that such remains may have been dedicatory rather than implying a sepulchral primary function (1969: 116). Llandegai A, Stonehenge I and Cairnpapple are all considered to function as cremation cemeteries, with Stonehenge I being in use from its construction in 3000-2920 cal. BC to 2470-2300 cal. BC (Parker Pearson *et al.* 2009; Parker Pearson and Willis 2011: 290). Catherall, however, suggested that some sites such as Fargo Plantation and Milfield North can be separated from the main body of henge monuments due to their *primarily* funerary function, though he does note that distinguishing between a primary function or use in a secondary sense for burials is difficult (Catherall 1976: 6-7).

This has also been suggested for the burial of a male, a young woman and a young child in a cist at Gorsey Bigbury; Burl suggested that they may have been sacrificed to bring power to the henge (1991: 10-11). Sometime after the initial burial, the cist was opened and the bones within were removed and manipulated. The majority of bones were 'flung' into the debris at the base of the ditch alongside Beaker sherds, and the female skull was placed in a new pit at the entrance to the henge as a 'guardian' burial, whilst the skeleton of the child

was intentionally smashed; further modification was evident in the deliberate breaking of the forearm of the male, which was then reset into its original place with some care (Burl 1991: 11). Harding suggested that there was a pattern in the distribution of henge monuments and Neolithic round barrows and ring ditches that highlighted that where round mounds and ring ditches are common, henges are poorly represented (1991: 144). In the Yorkshire Wolds, which contains a high proportion of Neolithic single burials, henges are spatially distant from the concentration of burial monuments (*ibid*: 145). This perhaps further highlights the primary burial function of some monuments, in comparison to henge monuments which contain human remains.

Andy Jones has considered evidence for dedicatory or deliberate burials for the earlier Neolithic causewayed enclosures of Southern Britain (2010). Within this paper he argues that burials of young males and children, whose remains show evidence of a violent death, are often associated with construction and closure activities of phases at causewayed enclosures (2010: 96). This, he argues, can be seen as a regionalised practice of memory formation and is just one of the functions and roles that causewayed enclosures had during the Neolithic (Jones 2010: 100). The idea of consecration through sacrifice is not a theme often considered for the archaeology of the British Neolithic; this is partly due to the difficulty of finding the evidence for such events archaeologically, but it is also partly a resistance to the idea. There are similarities between henges and cremation cemeteries as well as other Neolithic and Bronze Age circular monuments, and perhaps the pattern is not so clear as to say henges did not have a funerary function; sites such as Stonehenge and Forteviot certainly suggest a close relationship between enclosure and burial. Taking a step back and viewing the wider landscape setting, Parker Pearson and Ramilisonina viewed Stonehenge as part of a landscape that represented both life and death, with the characteristics of different materials being employed (1998a).

3.5.5 Feasting

Evidence for feasting suggests the importance of community gatherings and large-scale feasting can be identified at some henge sites, most noticeably Durrington Walls. Durrington Walls provides a large assemblage of faunal remains and ceramic sherds, which has been argued to be the remains of ritual feasts which were part of 'renewing and reinforcing social relations and obligations' (Richards and Thomas 1984: 215). The bone assemblage included pieces that demonstrated clear acts of violent deaths and 'hunting' of the animals, with

embedded stone arrowheads suggesting a manner of slaughter which is considered unnecessary for domesticated animals (Albarella and Serjeantson 2002: 44). The isotopic investigation of cattle bones from primary deposits has also suggested that cattle were being brought to the site from a wide area of southern England with no single geographical origin being identified (*see* Viner *et al.* 2010). Cattle, and therefore people, were travelling large distances to gather at Durrington Walls from varying directions (Viner *et al*. 2002: 2819) with large numbers of cattle and pig being slaughtered (Albarella and Serjeantson 2002). The character of the ceramic assemblage of later Neolithic Grooved Ware also demonstrated a clear preference in the deposition of decorative elements at specific areas within the Southern Circle (a timber circle within the henge monument) (Richards and Thomas 1984: figure 12.2, p.207; Cummings 2012: figure 12).

Richards and Thomas argue that the almost mutual exclusivity of post-holes with Grooved Ware sherds and those with flint flakes creates a distinct spatial patterning that is indicative of a formal pattern of deposition associated with ritual, as opposed to domestic, refuse (1984: 204). Furthermore, discussion has centred on the deposition of this material within the posts: Longworth describes it as being found within the 'weathering cones' of the post pits (Longworth 1971: 49), whilst Thomas (2007: 149) and Parker Pearson (2007: 141) have argued that the pits were recut into the post-hole and, therefore, the deposition of Grooved Ware occurred sometime after the rotting of the post and was a secondary activity at the timber circle.

The large assemblage of faunal remains at Durrington Walls suggests that vast numbers of animals were being slaughtered and processed within the short period of time in which the settlement was occupied. From the condition of the bones, of which the majority is pig bone, it is evident that meat was plentiful as bones were deposited without making the most of the nutritional value (Parker Pearson *et al.* 2011: 86). The absence of neonatal animal bones again supports the interpretation of Durrington Walls as a 'consumer site' and not one which was occupied all year round (Parker Pearson *et al.* 2011: 88). At Stonehenge, a small incomplete faunal assemblage (which has suffered at the hands of previous archaeologists) is made up of mostly cattle bones and some of pig (Parker Pearson *et al.* 2011; Craig *et al.* 2015). The majority of this assemblage is found within the fill of the ditch and is associated with the initial phase of construction between 3000-2920 cal. BC (95% probability) and then

its later infilling (Parker Pearson *et al.* 2011: 74). There is little faunal material associated with the second phase of construction, with the erection of the great lintelled stone circle. The earthwork at the Stones of Stenness also produced large quantities of animal bone and Grooved Ware that is often used to support the idea of feasting. Younger has suggested that these remains may relate to pre-enclosure activity in a recent biographical study of the site (2015).

It must be noted, however, that evidence for feasting has also been found at Grooved Ware pit sites. The Grooved Ware pits of Rudston Wold in Yorkshire include pot sherds and animal bone; the analysis has suggested that small-scale feasting was carried out in this area (Rowley-Conwy and Owen 2011: 341). Recent research (Craig *et al.* 2015) into the pottery and animal remains found during the excavation of the Durrington Walls village has shown that there is evidence of variable scale feasting – the evidence from pits is similar to that at other Late Neolithic sites where small-scale feasting occurs (Rowley-Conwy and Owen 2011). Some of these pits were interpreted as being part of closing ceremonies as houses were abandoned (Craig *et al.* 2015: 1104). However, the remains found in the middens occupying the space between the houses were suggestive of large-scale feasting, less frequent and probably in the winter (*ibid*).

Although it is difficult to define 'feasting', and to convincingly argue that it occurred from the archaeological record, sites like Durrington Walls provide a compelling argument. The sheer scale of food processing in comparison to the period of occupation, alongside the evidence that animals were brought from long distances and were not reared on site, all contribute to the interpretation that large scale feasting occurred in and around the cluster of buildings that were then encased by the vast henge monument. Furthermore, the idea of feasting, could suggest reciprocal exchange relationships that resulted in the construction of henge monuments, rather than the view that labour was controlled by the elite (Parker Pearson *et al.* 2011: 88).

3.6 Circles of wood, stone & earth: Studies of henges alongside other circular monuments

A large number of publications have focused on circular monuments within the landscape including: the repeated reclassification of henges (see *Chapter 2* above); a number of focused excavation reports (e.g. Smith and Keiller 1965; Wainwright 1971; Barclay 1983); a corpus of stone circles published by Burl (1976; 2000); and timber circles discussed in

publications by Alex Gibson (1994; 1998; 2000). These monuments are regularly discussed within the archaeological literature in relation to other classes, due to the general similarity in their shape and design. Timber circles and henges were considered prototypes for stone circles by Burl (2000: 33-34); whilst he had previously considered stone circles and henges to be equivalent monuments reflecting a lowland community with a lack of available stone, and highland community with easy access to large stone outcrops (Burl 1969). These can be considered an oversimplification of the available examples, the large rock-cut postholes at some of the Wessex henges show that lack of stone was not a reason for an earthen circle, and that regardless of geology specific architectural features would be included (Gibson 2004: 71). Furthermore, there is wide variation within each site-type meaning such simplified interpretation of their association between each other is dismissing a large amount of difference (Gibson 2004). The similarities in overall shape are the shared characteristic, however, the banks of henges are often seen as a visible physical barrier, whereas stone circles lack a continuous physical barrier and can only be seen to exclude symbolically. Particular routes of movement may be enforced by further elaboration at stone and timber circles, however, the visual exclusion evident at henge monuments is hard to replicate (Gibson 2004: 74). Timber circles (here discussed as simple standing posts rather than roofed or screened structures) would create a claustrophobic atmosphere with the view outwards confused and restricted; similarly, henges with high banks often block the view of the surrounding landscape creating a similar sensation (*ibid*). Stonehenge, with its multiple rings of standing stones, creates a similar experience, however, the majority of stone circles provide a very different experience. Disorientation and confusion is impossible within the majority of stone circles because the view outwards is not restricted, views may be focused on particular points or directions but the surrounding environment is not screened in the same way as timber circle or henge architecture close a space off (*ibid:* 75).

Later Neolithic palisade enclosures represent another class of roughly circular monument, defined by wooden boundaries such as free-standing tree trunks or conjoined timber palisades. Such sites were typically several hundred metres in diameter and were constructed after 3000 cal. BC in Britain, Ireland and Scandinavia (Noble and Brophy 2011: 61). They were typically constructed in places that were already established as areas of significance and continued monumental constructions (*ibid*). Scotland has five known large palisade enclosures which were all associated with a series of related monuments (*ibid*). At

Forteviot in Scotland there is a large palisade enclosure with a palisade avenue leading to its entrance, which is located within a complex of other cropmark sites including enclosures, henges and timber circles (Noble and Brophy 2011: 69). The significant difference between stone, timber and earth circles may relate to their experiential qualities as opposed to the materials used in order to construct and enclose a near-circular space. Henges, with high earthen banks, effectively restrict all views outwards, other than that through the entrance points. Stone and timber circles, however, create a barrier which is visibly permeable although some timber and stone circles could restrict views due to the proximity of the uprights.

Gibson (2005) has suggested that the chronology of timber circles is related to a pattern in the scale on which these monuments were constructed. The earliest timber circles were built with a modest proportion whilst those which were constructed around 2500 BC tended to have a larger and more complex layout, after which their size appears to diminish in the second millennium BC (Gibson 2005; Bradley 2007: 122). This pattern has also been speculatively suggested for stone circles although the dating of stone circles is often extremely problematic (Barnatt 1989; Bradley 2007; Burl 2000). Bradley highlights that considering interpretation of stone circles often replacing timber circles it is likely that such a pattern and overlap should occur (2007: 122).

Bradley (2007) and Gibson (2012b) have summarised the similarities and interchangeability of these monuments and argue for them to not be considered in isolation with there being no reason to regard them as separate 'types' (Bradley 2007: 132). They share a number of characteristics, overlap both spatially and chronologically but they also can be found within the same site and so, therefore, can have a direct relationship with each other.

3.7 Summary

This chapter has outlined how henges have been approached and interpreted since 1932. Due to the apparent uniqueness of henge monuments to Britain and Ireland, initial focus was given to ascertaining the origins of henge architecture. The morphology of the circular bank and ditch led to comparisons of henge sites with disc and round barrows, European barrows, and causewayed enclosures, however these comparisons have also been heavily criticised (Bradley 2011b etc.). Henges appear to be a group of sites which form part of a wide range of monuments with a circular form. Due to a lack of clear dates for the majority

of henge sites, a thorough analysis of henge origins is difficult, and interpretation relies mainly on form and a few select dates. Known dates for henge sites are discussed in *Chapter 6*, whilst 'formative' henges are discussed in *Chapter 7*.

Authors have used the architecture of henge monuments to support wider narratives of increasing social organisation during the Later Neolithic (see *Section 3.3* above), however such accounts focused on Southern Britain and a particular group of unique sites. This thesis collates information for all known henge sites (and possible sites) and suggests the picture is much more complex than these narratives suggest; the distribution of sites is discussed in *Chapter 5* and shows a large number of sites across Britain and Ireland. The distribution of form is also addressed in *Chapter 5*, highlighting the variation within the dataset, and the similarity of features with other contemporary sites.

The function of henge monuments has been addressed by numerous authors and the interpretation is directly influenced by the internal features of a site (Catherall 1976). Catherall (1976: 7) argued that such approaches based the interpretation of henge function on individual attributes, such as internal timber circles for example; timber circles interpreted as roofed structures led to interpretations based on social and political organisation, whereas timber circles considered to be free-standing posts were argued to suggest a ritual and religious function to the site (*ibid*). The significance of henge sites within the landscape is discussed in later chapters and a number of examples support the link between henge construction and movement. Extending this interpretation to consider the role of religion, however, will not be attempted within this thesis but is an intriguing avenue or research which deserves further focus.

The reason for enclosing sites with an earthwork is discussed throughout the thesis: *Chapter 6* focuses on pre-henge activity and dating the construction of earthworks, whilst individual sites are discussed in detail in *Chapter 7*. The collection of site data will allow the distribution of features, and the relationships between features to be investigated (see *Chapter 5*). A further consideration must be the sequence of events and construction at henge sites, as over time, and even within a community there may be several primary functions. Furthermore, often the use which is intended by the architect is not the one which is shared by the users and considering sequence and site development is also key to understanding

how sites are perceived by different generations – sequence and the life-histories of sites will be discussed in *Chapters 6* and *7*.

Alignments can be assessed for all sites with known or possible entrances, whilst landscape location will be investigated using GIS and information collected within the database (see *Chapter 5*). The landscape location of sites can be analysed to assess the notion of movement and 'procession' through henge landscapes, and the association of henges and water will also be assessed using location information and GIS mapping. Regional clusters that highlight an association with linear movement, or are directly related to watercourses, are discussed in detail in later chapters; these examples argue that monuments were constructed in association to directions of movement and not always on solstices.

Whilst it is difficult to investigate feasting at more than a couple of henge sites, it is also evident that such events refer to pre-henge enclosure. Further functions will be assessed through the analysis of features and chronology of site development, including the relationship between burial events and henge construction. Harding (2003) argues that henge earthworks developed out of a widespread practice of enclosure, evolving from the digging of earthworks around round barrows. Burial, however, is considered to be a secondary *Bronze Age* function of *Neolithic* henge monuments in the classic literature. The relationship between henge monuments and burial features will be investigated through the placement of such features and deposits within the earthwork, and (where possible) the chronological relationship between the henge and the deposited remains. The burial evidence, and the close relationship between later henge monuments and such deposits, highlights the close relationship between henges and a burial function at certain periods and in certain geographical regions over the lengthy period of henge construction.

Chapter 4 - A Methodology for Assessing Henge Monuments

4.1 Introduction

Historically, the main focus of investigation into henge monuments has been the repeated attempts to organise and classify them into neat succinct categories (discussed in detail in *Chapter 2*). This, however, also resulted in the loosening of the type definition and in creating a very clear division between those within the henge group and other related and similar sites such as barrows, ring ditches, and even earlier sites such as causewayed enclosures. This then affected the approach archaeologists took in interpreting and understanding these sites, which arguably led to the increasingly loaded perception of the term 'henge'. The link between architecture and a site type is problematic as sites are defined by their physical traits. The modern concept of architecture stems from the notion that architecture is finished and unchanging; yet the idea of completion is fictional (Brand 1994: 64; Ingold 2013: 48). Sites have a long history and are regularly altered, embellished or begin to weather resulting in an everchanging visible form.

This chapter outlines the process of this project in the context of relevant and current theoretical perspectives, in order to reassess the treatment and interpretation of a group of intriguing prehistoric sites considered to be henge monuments. This chapter will establish that a relational approach to typology provides a method for analysing the presence of strong patterns within a large dataset. This chapter will also highlight the value of a biographical approach in considering the use, experience, and impact henge sites had on a community, alongside attempts to find overarching general statements about henges as a whole in order to develop an approach that combines site-specific study with typological analysis.

4.2 Reviewing Henge Monuments as a 'Type'

4.2.1 'Monuments Don't Actually Breed': The Typology Debate

> *'At base level, the grouping of monuments into types is an exercise in homogeneity. Once this occurs, ludicrous ideas of hybridism, proto-types and sub-types are involved to account for the non-conformity and deviation from the ideal type'* (Richards 2013b: 14-15).

Typologies have always existed within archaeology as a way of organising and grouping sites and finds; they serve as the language of archaeology. In this sense typologies can be seen as a core subject of archaeological investigation. There is however a long-standing debate over

the value and significance of the typology system, with a number of publications calling for a reassessment of typology (see Sørensen 2015). Typologies can be considered essential tools which aid to show sequence and change or continuity over time and have been produced for objects, features, and sites. They can be considered as indispensable within archaeology: vital tools that are used in building chronologies. However, a typology can be seen to minimise variation and change and flatten this into a single 'type': Boozer (2015) has argued that typologies reduce or even 'erase' variation through the production and then subsequent application of a typological sequence in the interpretation of the archaeology. Typologies are traditionally created from a large amount of data and are split into similar groups before being reduced to a series of types; these types are then applied to new discoveries, therefore removing the large corpus of archaeological data and variation (*Figure 17*).

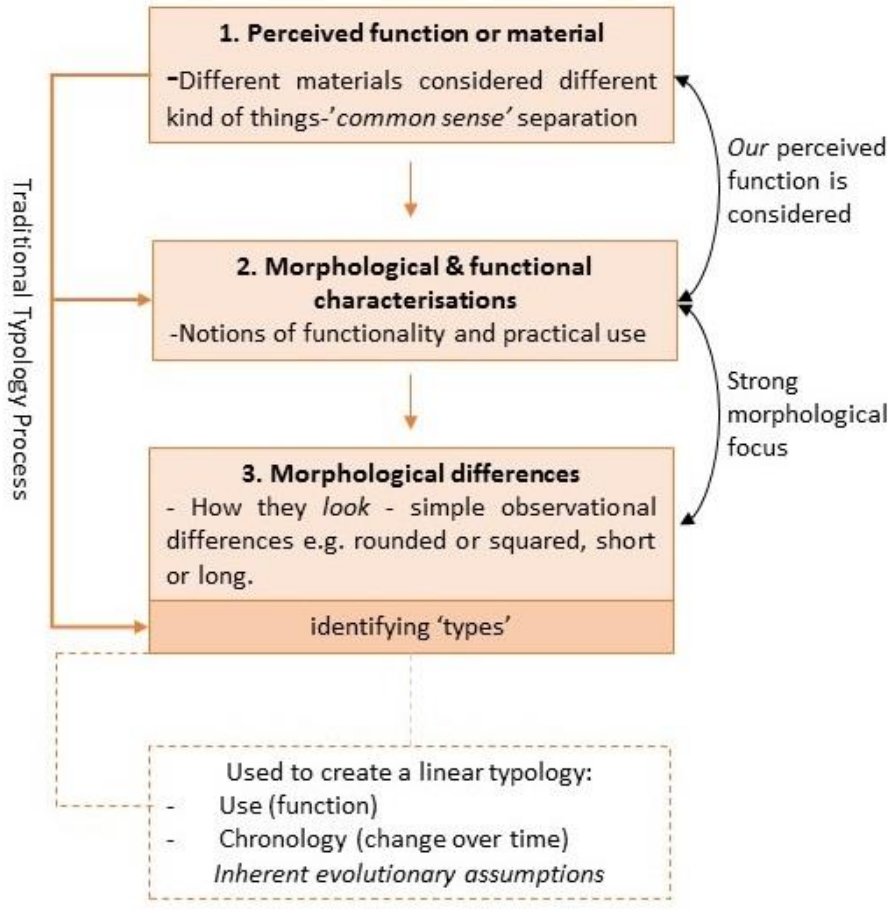


Figure 17: The process of creating 'types' – The steps of separation and sorting in the traditional creation of a typology (based on information in Sørensen 2015).

In another recent publication, Sørensen has argued for a large-scale reappraisal of typology, questioning whether the use of typologies has become a matter of identifying similarities without archaeologists reflecting on why this matters and why we select certain traits above others (Sørensen 2015: 85). Typology became a task of identifying types and placing them within typologies of relatedness, without a clear focus on asking a fundamental question of asking *why* these changes occurred: change became assumed to be associated with evolution (*ibid*: 86). During the 1960s-80s, encouraged by the interest in New Archaeology, statistical techniques and computation to recognise patterns became of widespread interest; typologies within this context were seen as a tool to extract order from a large amount of data (*ibid*).

Despite some attempts to update and re-theorise typologies during the 1980s, publications did not manage to keep typology as a central concern for current theoretical schools of thought (*ibid*: 88). As New Archaeology gave way to post-processual approaches, which attempted to remove such systematic approaches to data, Sørensen argues that typology, again, was 'squashed' (2015: 88): it appeared during this period that archaeological theorists did little to encourage theoretical engagement between the 'traditional' typologies and post-processual arguments for objects (Sørensen 1997: 179-81; Sørensen 2015). Many of the typologies that archaeologists still work with date to the late 19th and early 20th centuries and are based on formal morphological characteristics and provided criteria for classification rather than having an element of being 'critically engaging with objects and their semiotics' (Sørensen 2015: 88). These typologies then, were 'assumptions of order' and were developed on morphological grounds with an assumed order and expectation of relatedness (*ibid*).

The application of typology has a profound effect on the direction of archaeological study: seeing stone circles and henges as representing a monument 'type' has led to discussions orientated towards spatial and regional patterns, while the main questions regarding the monument type have been focussed on its use and purpose (Richards 2013b: 2). This monument 'type' stems from our understanding of construction and the idea of a finished usable structure, however a site would not necessarily need to be complete in order for it to have a significant social meaning and turning to the process of building a monument can highlight that (see Richards 2013a). All archaeological monuments hang in 'a typological

web', and although typology is a tool to create a sense of order out of variation and confusion, it acts to influence how an entity is then conceived (Richards 2013b: 14). By creating a typology and grouping monuments into 'types', homogeneity is emphasised, yet there is always a tension between individuality and uniformity within a typological system (Lucas 2001: 96-97; Richards 2013b: 15).

Richards also highlights how sites are considered as being within a relatively limited number of site types during the Later Neolithic; stone circles can be found within henge monuments (Arbor Low, Avebury etc.) and monuments can be seen to go through a 'typological metamorphosis' with one site type seemingly 'replacing' another (e.g. Bryn Celli Ddu – A passage grave replaces a stone circle and possible henge circle) (Richards 2013b: 14-15). By considering a site such as Arbor Low, as two site 'types' we are simplifying and dividing a site which lies within the landscape and is experienced as a whole. The 'stone circle' and the 'henge' cannot be seen as separate sites, they are one and the same, yet typologies do not provide a vocabulary for this. Typologies, then, need to be further subdivided and expanded in order to deal with variation and difference in comparison to the main (possibly considered *ideal*) 'type' into classifications within each type, otherwise known as sub-types. As Richards (2013b: 15) states, drawing on Brew (quoted in Lucas 2001: 81) it is important 'to remind those obsessed by typology '*that monuments don't actually breed*'!' and that monuments are not just reproductions of a single ideal 'type' site. We as archaeologists, assume that there is an order and a simplification within life, organising material into simplified ordered lists, prompting Sørensen (1997: 182) to suggest that the discipline 'has lost its ability to wonder why the world is not chaotic'. Recent publications have argued for an approach which works up from the detail of archaeological features, treating the overall form of a monument as a consequence rather than as a pre-defined and complete plan (e.g. Richards 2013a; Gillings 2015). As Ingold argues, structures are part of the world, and the world is constantly changing and moving along 'innumerable paths of growth, decay and regeneration' regardless of human action or intentions of creating fixed designs (Ingold 2013: 48). Although sites (for example) are thought out before they are built and can, therefore, be seen as the result of a conscious plan, it is important to remember the relationship between thinking and building is dynamic and reactive; both the medium and outcome of social practices (Rapoport 1980: 298; Parker Pearson and Richards 1994: 2-3).

A fundamental argument in the understanding of typological organisation is that of how the archaeologist views a typology: either the typology created has some relationship to kinds of categories or meaning within prehistoric societies, or typologies are just a tool to create order in data and are arbitrary in relation to prehistoric societies (Sørensen 1997: 181). Instead of either of these views, typologies should be recognised as 'heuristic tools' which are formed in relation to types that archaeologists believe to have existed in the past (Fowler 2017). Furthermore, Sørensen highlights the use and influence of typology within archaeology but argues that it needs to be considered within theoretical discussions and critically engaged with, and not just 'derogatively rejected' (2015: 90).

Richards' assertion that the language of typology effectively divides aspects of a monument into parcels is central to this thesis; the term henge has become engrained into archaeological literature as a unique aspect of later Neolithic Britain and so is considered in comparison to barrows, stone circles, and timber circles. This suggests that current approaches to monument typology divide a range of contemporary sites, when in reality those sites are not only found within close proximity to each other in large monument complexes but are also found *within* and *on top* of each other. Henges are reused as barrows, whilst henges enclose settlements – however, the site does not become a new site – instead it grows with new architectural additions that may change the way the space is used or experienced.

4.2.2 Typology and relational theory

Recent publications have argued that a monument should not be considered as a planned defined structure and instead as an assemblage – a monument is the results of a series of disparate imperatives (Lucas 2012: 204). A recent move towards reassessing our approach to typology has been suggested by numerous scholars, including Fowler (2017) and Wilkin (2013) amongst others, influenced by the current relational theory movement. At its core, relational theory rejects a 'correspondence theory of truth' that argues a reality exists independently of any observer. We cannot access any reality directly without mediating apparatus such as laboratory equipment and theories; through doing so the apparatus is a part of the reality as is the user (Fowler 2013: 20). Relational theories, therefore, stem from the idea that we are entangled with techniques, practices, theories and equipment, as well as the material culture and other physical remains of the past and that we must consider the composition of 'past worlds' in the same way (Fowler 2013: 20). There are many sub-strands

based upon a relational approach including symmetrical archaeology (see Webmoor 2007; Witmore 2007 etc.), and Actor Network Theory (e.g. Knappett 2011), while Ingold (2011: 69-70) talks about a meshwork of interwoven lines. Relational theory draws on Giles Deleuze's concept of assemblage; assemblages can include humans, animals and plants, as well as architecture and objects, but also desires and ideas. Single objects are also an assemblage: an assemblage of materials, properties and forms (Fowler 2013: 23). Therefore, assemblages not only change and overlap; they are also nested within each other. Bennett (2010) describes the cause and effect within an assemblage as emergent causality; this describes effects as being caused by the coming together of different components within an assemblage and, therefore, the same cause would not have the same effect in different assemblages. Emergent causality can be a useful way of considering change within prehistory; specifically, complex patterns of change and distributions (Fowler 2013: 27).

If types are viewed as relational and as shifting over time, this would allow for the flow of changing characteristics over a period of time. In comparison, traditional typology views types as ideal and eternal forms, fixed and unmoving. Where a number of sites sit outside of the strict fit of a typology, if these were assessed in relation to a relational typology these differences would fit within a wider web of relationships. Within relational theory, Fowler argues that we must start with typologies and then explore the relations that gave rise to particular places, practices and artefacts (Fowler 2013: 3, 65). Such an approach may, therefore, move towards answering one of the main flaws of typology within archaeology as described by Sørensen (2015: 91):

> '*Whether they are considered to be objective or subjective, they tend to presume that there is some kind of resonance between our ordering of the material and past realities. What we have lost, however, is the explicit scrutiny of what that link is about*'

Drawing from the traditional process of typology outlined above, it is clear that morphology is a large focus for the separation of objects/sites into different types; to understand *why* these changes are significant relies on our understanding of the creation process. The forms objects take are often inherently linked to others by direct reference to characteristics in their design. Objects, therefore, have connections, both 'lateral or horizontal' as part of a 'contemporary world of objects in addition to their vertical genealogical connections'; we can, therefore, see objects as forms which exist through reference to other objects

(Sørensen 2015: 89). Biographical approaches to objects have highlighted the 'life' of an object and how its function and significance can change over time, which current methods of typological sorting does not allow for. Furthermore, objects are judged as belonging to types in a specific context and by an archaeologist. That said, the view of the analyst and how we engage with material culture from the past must also be considered as influencing the construction of an archaeological type. Using a relational theory approach, it may be possible to engage with typology with an awareness of these issues; certainly, Fowler argues that typology has a vital role in an approach grounded in assemblage theory (Fowler 2017: 96). Lucas (2012: 195-201) suggests an assemblage-based theory of typology in which each thing in a series is produced in a reiteration of a past event – each thing is, therefore, seen as a new assemblage with many similar constitutive relations (Fowler 2017: 96). Typologies can be considered assemblages with each one having multiple points of origin, including events during prehistory and contemporary archaeological practices; an assemblage results from multiple and successive relations, processes and events and its properties and effects emerge contingently (Fowler 2017: 96).

Recent studies focusing on British architectural practices during the Neolithic and Early Bronze Age have highlighted the fluid way that sites can emerge as a result of many engagements with a range of substances, things and bodies (Gillings 2015; Pollard 2013; Richards 2013a etc.). The traditional rigid typology system that has a morphological focus, and our expected conformity to such typologies, perhaps overlooks the significance in difference and variation that is related to people's engagement with places and the transformation of them (Fowler 2017: 98). Forms may rely on the citation of previous forms, to a greater or lesser extent: therefore suggesting the possibility of a strong or weak 'type'. A strong pattern of repeated citation arguably highlights a strong 'type' that can then be investigated for further understanding to uncover the relations behind it (*ibid*: 98). It is also significant to understand that types can occur at varying topographic scales, from artefacts found across Europe to architectural elements local to a specific geographical region. Perhaps strong 'types' can be found within the 'fluid' emergence of some sites currently known as site types: a detailed understanding of the location, chronology, use and underlying relations could shed light on this for the current corpus of henge monuments. A strong type, for example, could be a group of sites that are similar in size, form, use, and date, within the current typology of henges. It is, however, also significant to remember that

'types' can change and split, developing in juxtaposition with existing ones; types emerged under specific circumstances and, therefore, they change as circumstances change (including practices and beliefs) (Fowler 2017: 97). Individual artefacts or sites can vary within types; no two are exactly the same, instead one relates to the other yet is different. Fowler suggests (using Beakers as an example) that a useful typology provides 'a tool for appreciating *multiple* relationships between any one vessel and any others', both in terms of similarities and difference (*ibid*). Variation can then be judged to be the creation of a new type, based on the speed of the change and the significance of the element that changes (Sorensen 2015: 90; Fowler 2017).

Types, therefore, form at specific historical moments but can disappear at others – as part of a flow of everchanging decisions and characteristics (Fowler 2017; Lucas 2012; 2015). Is it possible, then, to see types of henges? Where clear patterns do emerge, this would suggest a concentration in repeated productive assemblages, resulting in the creation of henge sites with similar characteristics; where there is great variation it can be argued that there are no clear types but there are characteristics which have longevity, such as the enclosure of space within a circular earthwork.

4.2.3 A relational typology of henges?

Henge typology has been stuck between the argument to abandon the terminology entirely (e.g. Gibson 2012b), and reliance on classic publications centred on the organisation and definition of henges into neat groups (see *Chapter 2* for discussion). Thinking through these sites with a relational approach has the potential to allow 'types' to be identified based on the repetition of patterns involving a number of factors and not just based upon the morphology and shape of the earthwork. Furthermore, types can change, they are not static architectural blueprints viewed independent of the short- and long-term chronology of archaeology – types can emerge at varying scales, which is significant when investigating sites with an apparent large geographical spread. Deleuzian assemblage theory focuses on becoming, local difference and how relationships give rise to things (Fowler 2017: 99); for the study of monuments, this nuanced view of typology allows the understanding of how the fluid emergence of sites is based upon the relations and engagements with other sites. Rather than applying a fixed typology in which we assume sites will conform to a narrow range of ideal types, we can view the differences, the distinctiveness of types, and understand the significance of such patterns. It is well documented that a number of

patterns have been identified within the broader group of sites termed henge monuments as described above in *Chapter 2*, including the repeated form of the Thornborough henges in Yorkshire (see *Section 7.3.3*), but perhaps it is possible to go a step further: by analysing data collated on the morphology of earthworks, features, landscape location and chronological evidence, it should be possible to determine whether there are weak or strong, local or widespread, types of henges. It should be possible to assess whether features that are found at henge sites help to support the notion of a type. By analysing the morphological data, repeated forms will be revealed that can then be investigated further, it may then be possible to map out the virtual limitations on what a henge can be (see *Section 5.3.2*). Limitations to this data will stem from the nature of strong dating evidence, and the lack of excavation at a large number of sites.

4.3 From a Group to Individual Sites: Different Approaches

4.3.1 Scales of time

Henges are often seen as a group of sites, typologically the same, which leads to assumptions (sometimes unconsciously) about meaning and use. Monuments are interpreted differently when you move from a single site 'at ground level' to an overview of a site type and it is considered important to be able to move between and link these views.

The question of appropriate scales of analysis, both temporal and spatial, is one often debated within prehistory. General accounts or grand narratives are often created through the use of long time-spans, large geographical areas or the tracing of 'traditions' over time. Whilst large general narratives are important in terms of generalised trends and period terminology, localised variations, traditions, and perhaps even actions of an individual or single community often cannot feature. Localised small-scale narratives, meanwhile, can give very detailed accounts of an area over a short period of time.

The traditional approaches of the 1960s described big changes with social evolutionism; with phenomena such as environmental change, population growth or top-down political changes being the main factors considered (Robb and Pauketat 2013b: 4). Whittle argues that there is a deep-rooted preference for longer timescales within archaeology and advocates gaining robust dates and thinking with high granularity over short timescales (2014: 1). Geoff Bailey's 'time perspectivism', based on the notion of the palimpsest with different datasets shaping different temporal scales through the examination of the archaeological record,

claims the possibility for longer-term narratives for most of prehistory whilst shorter narrative scales can be used in later periods with written texts and ethnography (Whittle 2014: 2; Bailey 1981; 1983; 2007). This leaves fine chronological resolution for the Neolithic, for Bailey (2007), as impossible. Other authors have focused on the advantages of taking such a long-term view as opposed to dwelling on the limitations of chronological resolution (Hodder 1987) or have called for a return to grand narratives (Sherratt 1995) leading Whittle to suggest that such a focus on the larger narratives are still active within approaches to prehistory (Whittle 2014: 3). Whilst large-scale histories provide grand narratives, they often have implicit political morality and flatten out differences; however, 'small histories' often implicitly reference large narratives through their use of terminology (e.g. Neolithic or Bronze Age, formative or classic) (Robb and Pauketat 2013b: 31).

Robb and Pauketat's volume *Big Histories, Human Lives* (2013a) aims to re-theorise scale, and looks at the intersection of micro-scale human experience and longer-term histories; Whittle has described the work as the 'most explicit and most sophisticated exploration, within prehistoric studies of multiple timescales' (Whittle 2014: 3). This multi-scalar approach considers historical ontologies or cultural worlds, traditions and practices, and historical landscapes; and within these are shorter timescales such as local histories. Yet Whittle concludes that the 'big histories' are still those that appear dominant in this approach (2014: 3). Other authors have emphasised the significance of the short-term (e.g. Barrett 1994; Harding 2005b – genealogies of practice; Borić 2010 – events or moments; post processualism focused on the human scale of analysis), whilst cultural anthropology studies were situated in the 'ethnographic present' of a few years (Robb and Pauketat 2013b: 5). Harding argues that advocating the primacy of single events (the short-term) or the 'time of the structure' (the long-term) is under-theorising a 'recursive and complex network of relationships' and invoking 'a reductionist or determinist understanding of social process' (Harding 2005b: 90).

Whittle argues that the study of enclosures provides the opportunity to use a multi-scalar approach without choosing one scale at the exclusion of others (Whittle 2014: 1). The *Gathering Time* (Whittle, Healy and Bayliss 2011) publication highlights the dating opportunities and possibilities to create a well-structured and accurate narrative of seemingly similar traditions of monument creation. Well preserved or buried cropmark

enclosures can provide information on pre-enclosure site use, enclosure construction, and episodes of use and abandonment. Such information can create a detailed account of the creation of a site within the landscape and peoples' relationship with it over time; for example, it could be found that a site was constructed, used and abandoned within a generation, or perhaps a site survives and is repeatedly used and respected over a longer period, involving a number of generations. For *Gathering Time* Whittle, Healy and Bayliss (2011: fig.15.28) were able to think in terms of lifetimes (c.70 years) and generations (25 years), allowing them to think about the sequence of the monumental tradition of causewayed enclosures and to estimate the duration and tempo of change (Whittle 2014: 1). Enclosures can, therefore, enable the construction of individual site biographies but also detailed regional sequences through precise dating (*ibid*: 7).

The study of henges, therefore, can potentially provide a similar way of discussing long-term changes and generalised histories of architectural traditions, local variations of architecture and use, and also the micro-scale of individual episodes of use or single events. However, the process of establishing a refined chronology for henges is nowhere near as developed as it now is for causewayed enclosures. Whilst a 'Gathering Time' approach is not possible within this thesis; later chapters will discuss the existing dates relating to henge construction and how far we can describe an overarching timeline for henge development.

4.3.2 Scales of space: sites, landscapes and GIS Mapping

The use of phenomenology and other post-processual approaches led to an increase in landscape-based studies that examined the experience of sites (see *Chapter 3*). Such studies focused on the individual site, monument complex or regional areas, however other approaches allow the analysis of a large number of geographically dispersed sites. One approach to investigating sites and different scales is by using computer software that allows the viewer to move between different scales of view, such as GIS software. GIS can store large quantities of data and is a way of processing spatial data and displaying the results. It can be used to evaluate the relationship between sites and landscapes and intervisibility between sites, using a variety of tools. GIS mapping can be used to look at sites within a larger geographical context, including their association with other sites, their topographic and geological locations, and views from sites to others.

There are limitations to using GIS software due to the modern nature of the tools – most data relating to topography is from modern surveys and, therefore, reflects the modern landscape, and viewsheds are calculated based on this data which does not take into account the possibility of dense tree cover that would affect visibility. Using GIS is, therefore, not without its problems, but it does allow the geographical mapping of sites and investigations into their relationship with each other and within the landscape, as well as allowing us to calculate distances from land formations or water, and possible visibility, which aid in spatial analysis. ArcGIS 10.3.1 has been used in this thesis to produce the maps and figures throughout, and all sources of data used are listed in *Appendix E*. ArcGIS is used in *Chapter 5* to assess a range of factors, such as the density of henges across the British Isles, to using tools that calculate cost-distance from watercourses.

4.4 Interpreting Henges

How else can we approach henge sites? A key concept is the notion that a site or monument can acquire multiple meanings or uses over time, moving away from a static and singular 'reading' of the site, to a more nuanced approach to the life history of the site.

A biographical approach to monuments stems from the concept of artefact biographies, in which artefacts are understood as being used over a period of time and in different contexts, possibly exchanged and with meanings placed upon them before finally becoming disused and deposited until archaeological excavation. One of the central arguments for the importance of this object-based biographical approach is that the life-history of an object is central to its social function (Papmehl-Dufay 2013: 63). This type of approach considers objects or places to have a life-history in the same sense that people build up a biography throughout their life span. This approach is based upon memory and remembrance, both that of a retained status as long as a history is remembered and new uses.

4.4.1 Biography of a henge

In Pollard and Reynolds' account of Avebury, they aim to 'chart the shaping and manipulation' of Avebury and its surroundings from prehistory onwards (2002: 10); they highlight that in this approach traditional period divides (such as Neolithic and Roman) are not necessarily reflected in the archaeological evidence of particular regions or localities (Pollard and Reynolds 2002: 11). They suggest that a better understanding of earlier landscapes can be achieved by studying the full range of evidence rather than segregating

periods and examining them outside of their temporal context (Pollard and Reynolds 2002: 10).

Gillings and Pollard published a biographical approach of Avebury in 1999, which discussed the life histories of the large sarsen stones of the interior stone settings. In contrast to artefact biographies which can involve spatial movement by the passing of hands or use in different spatial contexts, the stones at Avebury have generally stood unmoved for thousands of years and so it is the world around them (people, artefacts and landscape) that has moved and changed and resulted in the accumulation of biographical detail (Gillings and Pollard 1999: 180). Rather than considering these large stones as just 'inert components' of a larger monument, they suggest that individual stones and elements can carry their own biographies; they argued that far from being static, the stones had a life history that could be seen in the traces of activity and wear through human actions on the stones themselves and have a form of material agency themselves (Gillings and Pollard 1999: 180, 185). The sarsens would have been part of an extensive spread of sarsen blocks occurring naturally within the landscape and would have been known to the communities of the earlier Neolithic in the area. These places would have been linked by pathways and 'would have constituted a powerful physical presence of the social appropriation of the landscape for these groups' (Ingold 1986:130-164; Gillings and Pollard 1999: 183). Many of the sarsens at Avebury show evidence of working prior to their placement within the henge related to the working and polishing of stone tools, this resulted in smoothed areas or concentrations of percussion marks on the surface of the stone (Smith and Keiller 1965; Gillings and Pollard 1999: 183). Through repeated visitation and activity, such stones would have accumulated social knowledge becoming 'key nodes' within myths, narratives and cosmologies (Gillings and Pollard 1999: 183). Stone has come to be associated with durability, timelessness, and the ancestral world (e.g. Barrett 1994; Parker Pearson and Ramilisonina 1998a) due to their almost 'constant' being against the impermanence of human life (Gillings and Pollard 1999; Barrett 1994). Building upon this notion of stones being metaphorically linked to the ancestors, the authors suggest that the inclusion of individual worked stones within structures such as Avebury and West Kennet long barrow created the 'direct embodiment of ancestral spirits' (Gillings and Pollard 1999: 184). The distinctive lack of regularity of the stones incorporated into the Avebury stone settings, alongside the sheer size and bulk of the stones suggests that they were distinctive entities selected for inclusion (Gillings and Pollard

1999: 184). This concentration of significant stones could be interpreted as a nurturing event, perhaps considering Avebury to be 'a carefully choreographed gathering of' the ancestors as opposed to a structure built for them (Gillings and Pollard 1999: 184, cf. Parker Pearson and Ramilisonina 1998a).

They suggest that through an archaeological investigation a sites' life-history is remembered, or 're-remembered' (Gillings and Pollard 1999; Papmehl-Dufay 2013). In this approach a site is not just surviving in the current landscape with faint traces of a distant past, instead it can be seen as living and as an experiencing actor (Papmehl-Dufay 2013: 64). Furthermore, the importance of approaching the monument as a collection of individual structures and not a typological entity is emphasized in Gillings and Pollard's (1999) study centred on stone 4 of the Avebury stone circle. Younger's recent thesis also applies a biographical approach to henges, as she considers it well-suited due to the changes and reuse made to the sites over time (2015: 68). By using biography, she considers the relationship between earlier activity and later monuments, and goes beyond the descriptive nature of some biographies to consider the reasons sites were '(re)used' over time, focusing on the idea of history of place (Younger 2015: 71). Focusing on henge sites in Scotland, Younger identifies periods of placemaking and transformation within the development of henge sites and champions the importance of including considerations of the construction of a monument within the site's biography.

The major limitation for archaeologists attempting to reconstruct biographies is the quality of information which is available. There needs to be a large proportion of data to reconstruct a lengthy biography without conjecture (Joy 2009: 543). For object biographies, evidence of the production and contextual information for the 'death' is required (ibid). A monument, however, highlights the need for a relational view of biography, that considers change and reuse rather than the 'birth, life and death' of a site (or object). The strength of the approaches outlined above, is the extended view of site development that is addressed: the accounts discuss early features which predate the earthworks through to later reuse (Gillings and Pollard 1999; Darvill 2006; Younger 2015). Younger aims to move biography towards being a method for answering large questions like why changes happen over time.

For this reason, a biographical approach to individual henge locales forms a key part of this thesis. The database devised for this thesis includes information on sequences of features

and deposits, and the relationship between the henge earthwork and other features in particular; for sites with a good excavation publication, it should be possible to assess the whole dataset for overarching patterns but also to see detailed entries for individual sites.

Identifying features as pre-dating the earthwork, through the analysis of dating and phasing information, it is possible to discuss early activity at a site which was later enclosed. Thus using a biographical approach towards the study of sites or 'place' highlights that events and actions connected with a place will have an impact on the course of following events; these can vary from short-term impacts and memories to major events that can alter the use of space (Papmehl-Dufay 2013: 64). Activities or performances following the expected pattern at a site serve to maintain and develop the history of a site, whilst events that deviate from the previous patterns can cause changes in the life-history (*ibid*). In this sense, performances that conform to the previous use of the space, including controlled movements can serve to develop a deep history of the site and become an act of remembrance; in contrast, the deliberate destruction of an earthwork or timber or stone settings creates a new phase within the life-history of the site, effectively altering the possibility of events drastically. Papmehl-Dufay also highlights how triggering events could also be archaeologically undetectable using the example of Abbey Road: the Beatles crossing Abbey Road zebra crossing did not deviate from the expected use of the place, however the memory of that event has now changed the site into a place of pilgrimage for Beatles fans as well as continuing its daily use as a simple road crossing (2013: 64-65). It is important to consider that changes in the use or alterations at archaeological sites may have been triggered by physical acts or by conceptual changes in the minds of the users. Furthermore, studies such as Gillings and Pollard highlight the importance of moving past the view of monuments as a whole and considering individual elements or structures within its life history, the development of meaning and the social practices which led to the incorporation of such elements within a site (1999: 180).

Such approaches offer clear advantages in the interpretation of archaeological sites, however good biographical accounts rely on the recovery of datable material and clear chronological relationships between features from sites which have seen a large area excavated. Due to the nature of the sites considered within this thesis, a large proportion of the sites included have seen little to no excavation, making such an approach difficult

beyond an individual site level. One benefit that comes from a biographical view of site sequence is the change in how time is viewed – from strict radiocarbon dates (which often have large error margins), to talking in terms of lifetimes and generations, within living memory or over longer timespans. This creates a number of scales of time which can be discussed, in relation to features with and potentially without datable material.

4.4.2 Memory and henges

A monument is defined as enduring, memorable and serving to commemorate; the etymology of the word comes from the Latin *monere* which means 'to remind' (Oxforddictionaries.com; Bradley 1993: 2). Archaeologists, however, use monument as a term to organise and divide archaeological evidence; therefore, monuments are considered items of information whilst some prehistorians have considered them as significant and different as they 'flout' the principle of least effort (Bradley 1993: 2; see Trigger 1990).

As Papmehl-Dufay (2013) has highlighted, memory is an intrinsic part of our understanding of place. Memory is, however, often considered as being beyond the reach of archaeologists due to its seemingly non-physical and intangible presence within a landscape. Yet archaeology is arguably about memory: materiality and temporality are the fundamental basis of archaeology and as such, all archaeology is about memory (Hamilakis 2010: 188). Materiality and temporality are the fundamental premises of remembering and forgetting. In fact, a recent focus of investigation has been surrounding different conceptions of memory resulting in the emphasis on the collective processes of remembering and forgetting (Hamilakis 2010: 188-189). Renfrew draws on research in the contemporary arts to provide insight for archaeologists and help us understand the processes by which new social orders and new ways of living were made possible. Relevant to the study of prehistoric monuments, Renfrew (2004) discusses the work of Richard Long whose work charts a record of a particular walk and focuses on the aspect of leaving a trace in the landscape (see http://www.richardlong.org/). Renfrew outlines his experience of working alongside this artist and compares his work to the creation of a monument; he understood early monuments in a different way, considering the enhanced sensitivity of the buildings to their place in the landscape (Renfrew 2004: 14). Renfrew acknowledges the similar approach taken by phenomenologists (e.g. Tilley 1994), and by those investigating the influence of natural landscape features on monumental architectures such as Chris Scarre (2002). However, he notes that caution must be taken to make sure that we consider collective

experience, and that these approaches are inclined to think in terms of an individual and personal experience (Renfrew 2004: 14).

Through research into an example of Long's artwork which involves adding to a pre-existing cairn, Renfrew argues that it 'invites us to consider the emotional and social effects of cooperative work when an entire community joins together in shared labour in order to construct a chambered cairn'; in this way the social reality of early communities may have been constructed or at least enhanced through their communal endeavour (Renfrew 2004: 15). This paper leads Renfrew to look at the process of being in a place, marking your presence, which then becomes a mark of absence. Such marks become an enduring presence in the landscape which he considers to be a monument – a construction that deliberately evokes memory (Renfrew 2004: 17), and this process is clear in Tilley's 1994 *Phenomenology of Landscape* in which he emphasises the notion of a landscape as a palimpsest of indications of human experience (Renfrew 2004: 17).

Rebecca Younger (2015) has discussed how memory is considered within archaeology and highlights how memory is active and reflexive and does not, therefore, occur without the agency of the observer. In her study of henge monuments she suggests that these sites are acts of commemoration, which involve the creation of memory through physical activities (*ibid*). Such examples could include the deposition of Grooved Ware into the post pits of the Southern Circle at Durrington Walls and the Early Neolithic deposition within a tree throw marked in the landscape into the Late Neolithic, with further deliberate deposition and the creation of Woodhenge (Pollard and Robinson 2007). Furthermore, the construction of henge sites, even if undertaken under an accelerated timescale, are major projects that require planning, the collection of resources and gathering of a workforce; this is a significant undertaking that would arguably create a lasting imprint in the memory of a community (Younger 2015: 77). The construction of three such sites at Thornborough would have definitely marked a major event within the community and indeed for a long period of time thereafter the area would have been a busy landscape, with people working on the unfinished monuments.

4.5 Cataloguing the henges of the British Isles

4.5.1 Database construction

In order to create an up-to-date catalogue of sites described as henge monuments both previously and currently, it was apparent that a database would be an effective way to collate information.[3] The database collates information on all sites which have been classified as henges or hengiform in past literature or current HER datasets, to create a searchable and current catalogue, an exercise undertaken for the first time since 1987.

A relational database was created in Microsoft Access based around a main table displaying location and National Grid Reference, HER/NMR information, basic form and general descriptive information. The format of Access meant that multiple layers of information including landscape locations, individual features, finds, and radiocarbon dates could all be included within the database for sites (when that information was available). The database was constructed by creating multiple tables that each focused on an aspect of a henge site, allowing entries comprising of the maximum amount of available detail. The database includes tables on: general information (classification, location, size etc.); landscape (description); literature history (previous classifications); orientation (direction of axis and entrances); excavation history; banks and ditches (detailed entries on size and form of ditches); features; finds; radiocarbon dates; sequence and phasing; and scheduled status.

This web of multiple tables, in effect, layers the information gathered from publications including sequence interpretation, dating evidence, individual features, and finds. This format allows the data to be queried using a number of factors, which are all relationally linked to each other.

Whilst also creating an editable catalogue, the key purpose of creating a relational database is to allow the information to be better understood in context in order to allow for better analysis, in particularly to address the research questions in *Chapter 1*. The catalogue will be the basis of analysis for testing whether a relational typology will successfully distinguish types within the variation of the current henge class. The current dataset will include the current dataset of henge sites, including possible sites. Through the analysis of henge types it will be possible to discuss development of sites over time and regional variations. Sites can

[3] Throughout this and following chapters, unless otherwise stated, 'henge monuments' will refer to all sites included within the analysis that will include sites listed as a henge, hengiform, henge-related or uncertain sites that are described as likely or possible henge-related sites.

then be discussed as a 'type' and individually, in response to the growing feeling of mistrust with traditional typology and its morphological basis.

The database can also be used to look at how previous classification attempts have affected the way in which sites are recorded, and to highlight the impact that new classification terms have had on the variety of sites included and classified as henge related in HER databases. The effect of classic classification literature is discussed in *Chapter 5,* using the information within the database.

The analysis of sites currently included within the henge category can begin by looking beyond the morphological form of the earthwork and instead including as many factors as possible, including features and sequence to investigate the use and sequence of events at these sites. Through the analysis of sites termed henge monuments, and by investigating, use, dating evidence, sequence and other aspects of the creation, use and design of a monument we can start to move away from analysis based solely on the physical properties of the earthwork such as placement of the bank, ditch and entrances – a chronologically compressed 'aerial snapshot' of a site which I, hereafter, refer to as a 'flat morphological analysis'. The format of the database with related tables of information on specific features, artefacts, radiocarbon dates and interpreted sequence of construction, provided the possibility of drawing out patterns within the sequence of site development, the association between certain features at henge sites (see *Section 5.4*), the size, date and landscape setting. The database is an important tool in building the interpretation of henge use and site biography (see *Chapter 7*), and for analysing the chronology of henge sites (*Chapter 6*).

4.5.2 Sources

The database was initially constructed using the sites listed in the literature of previous classification attempts (Kendrick and Hawkes 1932; Clark 1936; Piggott and Piggott 1939; Atkinson 1951; Tratman 1967; Wainwright 1969; Burl 1969; Catherall 1971; Clare 1986; Harding and Lee 1987). These publications provided appendices and lists of sites which were included within their definition of 'henge', or had previously been referred to as a henge or a henge-related site in a further piece of literature (See also *Table 1* in *Chapter 2*).

This list was then expanded using references to henges in grey literature sources (ADS Grey literature archive), national monument records from governmental websites (e.g. Pastcape; Canmore; RCAHMS; RCAHMW), and occasional generic internet searches for news articles

discussing recently identified sites. Furthermore, sites which have been referred to as possible henge monuments within more recent publications that had not already been included within the dataset were also added. Harding and Lee (1987) included all sites within their catalogue that had been claimed as henges, or could reasonably be regarded as related to the henge class.

Some sites were identified with different names by different sources. Such duplicate entries have been collated into one. One such example is the site of 'East Whitestripes', which is listed in Clare's (1986) appendix of henges, however, when gathering the information about this site it became clear that this site was also referred to as 'Whitestripes' in Harding and Lee's (1987) volume, and 'Old Machar' in Wainwright 1969: 'Old Machar' from Wainwright 1969 and 'East Whitestripes' were listed as separate sites in Clare's appendix but are one and the same. This database, therefore, collates all known references to these sites as well as the available NMR records creating a stable up to date collection of all relevant sites.

Due to the large number of sites which were being included within the database and the time constraints of this project, it became apparent that a degree of prioritisation was necessary. Therefore, sites from NMR websites were reviewed and those which were previously thought to have been henge monuments, or were still considered to be henge-related but there was very little information which could be used within the database were collated and added to the database with the HER reference numbers but excluded from detailed analysis, though are visible in some general distribution maps. Sources are acknowledged within the database by author name and year, with the full list of site-specific references listed within *Appendix A.1.*

4.5.3 Terminology

The process of collating these lists of sites and excavation reports, alongside a critical review of the repeated reclassification attempts, has highlighted the inadequacy of the terminology currently in use. Within the database, terms such as henge and hengiform, as well as other sub-classification terms, are used and recorded as they appear in the sources identifying that site. The database itself makes no comment on the use of the terms other than to record how each site has been described and, therefore, classified into a type-group by previous authors and in HER records.

4.5.4 Area of study

Due to the current state of understanding and clarity relating to the use of henge-related terminology and recording, it was essential to collate all known sites which have previously been or are currently considered to be henges or henge-related.[4] Sites were, therefore, included from the entire of the British Isles, creating a large database. Irish sites were often not described as a henge within the NMR databases, but Irish sites are generally different and are termed 'embanked enclosures' amongst other things (see *Chapter 2*), and so these sites were included within the database, and referenced as sites possibly considered as 'Irish henges'.

4.5.5 Radiocarbon determinations and date calibration

Dates included in the database are the original details provided in the publications (listed as the source within each table entry). For dates that did not provide a BP date, the lab references were checked against the Council for British Archaeology's radiocarbon database in order to gain the BP data where possible (CBA Radiocarbon Index). Calibrated dates were processed through OxCal online version 4.2. Radiocarbon dating and dating evidence is discussed in *Chapter 6*.

4.6 Summary

This chapter has outlined the methodological process involved in the completion of this project and emphasised the importance, but also weaknesses, in one of the staples of archaeological identification: typology. This project aims to take a scalar approach towards the study of henge monuments, by appreciating the multiple levels of interpretation and analysis that are important in archaeological investigations. By looking at the sites as a typologically distinct group and reassessing this assertion from the perspective that typology is relational, the large scale 'whole' (all henge sites) will be considered before discussing case studies at different scales of analysis, including regional (county level and clusters) and site-specific interpretations. Moving between these different scales, the focus will change, but will provide us with different levels of interpretation. A relational database provides an up to date catalogue of sites previously and currently termed henge sites, which can be used to interrogate the collected information through excavation and publications.

[4] Henge-related is a term used for sites which are considered to be hengiforms or similar and likely to be related to henge monuments, but which have not been formally classified as a henge monument.

Relational theory and biographical approaches are similar in that they can lead us to think about sites through the relationships between people, places and objects. By using a relational approach to dissect the large corpus of henge sites, to draw out reoccurring patterns it should be possible to suggest if a typology is useful to categorise henge monuments. Looking at detailed accounts of site developments will highlight the variation within the specific activities occurring at individual henge sites - biographical approaches may show that there are no 'typical' biographies expected for henge monuments (Younger 2015: 248).

Biographies can, however, be built up to provide evidence supporting wide-scale narratives such as the significant of place-making, and the importance of memory and a sense of the past (Younger 2015; 2016). Biographies can fill the gaps within current methods of typological organisation by highlighting how the function and significance of a site or object can change over time. Employing both approaches could, then, provide insights that include the idea of a strong reoccurring set of characteristics (through a relational typology), but also be used to suggest why such characteristics are prevalent. This thesis will:

- Investigate whether it is possible to discern strong types emerging from the variation and 'noise' of the large henge corpus, by analysing patterns in form, features, date and landscape location recorded within the Access database (*Chapter 5*). It will also assess whether there are patterns within the corpus that suggests regional or chronological typological patterns.
- Assess whether such an approach to typology is beneficial for the study of henge monuments, by discussing patterns (or lack of) and what this adds to our understanding of henge sites.
- Assess whether it is possible to argue for the idea of an 'architectural repertoire of forms' (see Barnatt 1990: 12). Are there combinations of features that appear more than others, which may suggest a pattern but still fall within a large repertoire of possible variations?
- Argue that chronological trends are difficult to decipher due to the nature of dating evidence available; dates relating to construction will be used to highlight the longevity of these sites across the British Isles.

- Investigate the development of regional groups or monument complexes, and the similarities or differences between these sites– landscape analysis will identify clusters of sites which can be discussed at a site level, comparing form, dating, and features. This is addressed in *Chapter 5*, before being expanded in *Chapter 7*.
- Assess how biography can add to the interpretation of henge sites alongside a relational typology, biography can be used to discuss reasons behind the variation between sites.

Chapter 5 - Initial Analysis: Searching for a new henge typology

5.1 Introduction

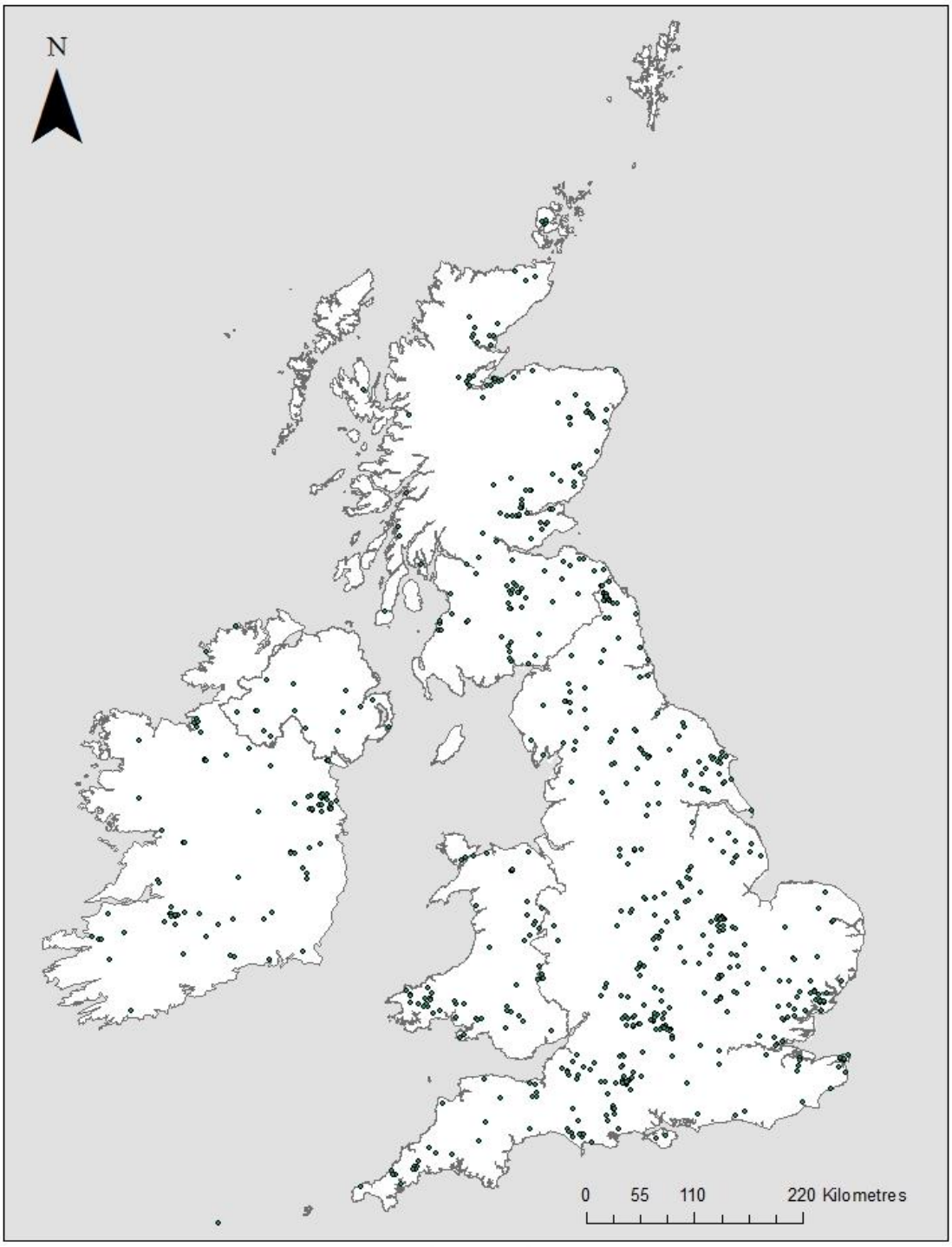


Figure 18: All sites included within this thesis ever considered as a henge (total=809)

As outlined in *Chapter 4*, the database was constructed and completed during the first two years of this PhD project, with a metaphorical line being drawn in July 2016 in order to complete analysis and detailed case studies within the period of PhD study. Data collection over many months produced 809 records for sites that are currently, or have previously

been, considered henge-related across the British Isles. The distribution map of these sites shows a number of clusters, but overall there are fewer gaps than are often discussed in archaeological publications when all of the sites considered to be henge-monuments (past and present) are included (*Figure 18*).

This chapter aims to delve into the information collected from these sites to establish the effect the continued focus on classification in the literature between 1932 and 1987 has had on the number of sites recorded and included within the henge class, and how it continues to affect recording today within HER and NMR records. The sites will then be analysed to look into the variation of form, features, landscape location and use in order to address the idea of a henge as a site 'type', to look for cohesion and repetition within the variety in order to assess if there is evidence to suggest a site-type.

5.2 Initial Database Analysis

5.2.1 Indeterminate and Excluded Sites

Due to time restrictions and the growing number of sites in the catalogue, it was decided that for sites which had very little information, had only been very partially explored, or have not seen any excavation, only the basic site information including location, HER and related literature would be recorded. Due to the lack of detailed information these sites would be excluded from almost every dimension of detailed analysis and were included with basic reference and location information in order to include as many relevant sites as possible within the self-imposed time limit (n=185). As archaeological investigations continue, a number of sites are currently in the process of excavation projects or are being written up, whilst other sites are found during commercial excavations; *Appendix D* lists details of sites found and referred to as a henge since the completion of the data collection for this thesis and sites that are currently the subject of an excavation research project or are in the post-excavation/publication stage. A further group were sites that had once been listed as henges but have since been proven (or confidently thought) not to be a henge (n=187).

Table 3 below summaries those sites included within the database but excluded from the analysis (unless otherwise stated). The table highlights a large number of sites that have been considered to be henge monuments in past literature or NMR datasets previously, which have since been re-evaluated or excavated and dis-proven, including one site reconsidered to definitely be the remains of a WWII searchlight battery (Bishop's Tachbrook)

and several sites known to be post- or wind- mills. Within this category, sites listed under 'excluded non-henge site' have been relisted as non-henge sites or are argued heavily to be most-likely non-henge sites within recent literature or the HER records. Sites that are listed as 'Excluded unlikely henge' are sites which are described as being unlikely within literature or the HER but lack sufficient details to fully re-analyse them within this study, whilst those 'excluded - no information' sites have very little or no information provided that would benefit the overall analysis which is being attempted in this chapter.

Table 3: Table summarising the sites within the database which are excluded from data analysis (unless otherwise stated)

Reason for exclusion			Total
Excluded - unlikely henge			79
Excluded - no information			185
Excluded - non-henge site (re-designated as or considered almost definitely to be):			187
Prehistoric sites	Barrow	47	
	Cairn OR Ring cairn	25	
	Causewayed enclosure	1	
	Chambered tomb	1	
	Enclosed cremation cemetery	10	
	IA/Roman enclosure OR rectangular enclosure	12	
	Later prehistoric enclosure	3	
	Palisaded enclosure	1	
	Passage grave	1	
	Pit cluster/circle	3	
	Ring ditch OR enclosure	13	
	Settlement	18	
	Hut circle	1	
	Stone circle OR Stone setting	23	
Historic/Modern sites	Medieval burial ground	1	
	Medieval enclosure	2	
	Mill [post-mill or windmill]	8	
	Mining OR Quarry	2	
	Motte	1	
	Signal station	2	
	WWII searchlight battery	3	
	WWII barrage balloon site	1	
Other	Unknown/Natural	6	
	Uncertain circular enclosure	2	
		TOTAL	451

The table above (*Table 3*) highlights that prehistoric sites that were erroneously classified as henge monuments have, subsequently, most often been re-categorised as barrows, ring cairns or stone circles. Many later prehistoric or modern sites were assumed to be henges or hengiforms due to the generic round shape of unexcavated cropmarks and earthworks. A number of the excluded sites still listed as henge monuments (but which have also been

tentatively assigned to a number of other possible classifications) also fit the pattern outlined above in that they are often listed as possible barrows or ring ditches, hillforts, mills, and/or other WWII sites. The number of Iron Age or Roman enclosures (12) is perhaps quite high considering that they are a much later form of enclosure – however, these sites are often curvilinear enclosures and known through cropmark or unexcavated earthworks. Fynnon Brodyr (*Figure 19*) is a damaged earthwork that is still currently listed as a possible henge but it appears to be rectilinear with curved corners - clearly not the typical form of a henge. Many 'uncertain' enclosures could similarly be altered by plough damage reducing or altering the layout of the enclosure as visible on the surface or as a cropmark.

Figure 19: Oblique aerial photograph of Y Gaer, Clynderwen, taken by C.R. Musson, 02/03/94 showing the Ffynnon Brodyr enclosure (copyright RCHAMW 94/CS/0323)

A number of the sites within the excluded group are sites that appear in the Harding and Lee 1987 catalogue but were rejected by the authors as being highly unlikely to be henges, or were reclassified as sites other than henges and do not occur in the earlier literature. Harding and Lee's 1987 publication included all sites known or found through aerial photography, which were claimed as henges or could reasonably be regarded as related to the henge class and so, therefore, these sites were included within the database of this project.

Stone circles or settings are the most common previously mis-interpreted type of sites within this group – 23 sites have been reclassified as stone circles or settings but were once thought to be or classified as henge monuments. This reflects the close link between henge monuments and stone circles that is regularly represented in articles (see Burl 2000: 33-34,

for example). Stone circles and settings are also found directly related to some henge earthworks or in the surrounding landscape, as well as sharing a circular form. A number of sites are listed or referred to as ring-ditches or enclosures – it can be argued that many sites that are unexcavated can be listed only as 'enclosures', due to the lack of clear dating evidence or recognisable form. These sites are described as being more-likely ring-ditches or unspecified enclosures than they are recognisable henge monuments, however, all 12 sites are unexcavated and with further investigation they may again be re-classified dependent on the interpretation of the findings. It is interesting that potentially more sites have been mistakenly identified as henges than are known to be henges, or are discussed within publications on the subject.

Table 4: List of sites classified as 'enclosed cremation cemetery'

Site	Description
209 Fall Hill 168	Probable enclosed cremation cemetery - stone ring bank with an off-centre small cairn in the interior.
175 Bleasdale	Enclosed Bronze Age urnfield surviving as an earthwork.
304 Whitestanes 1	Enclosed cremation cemetery, cairnfield, enclosure
429 Loanhead of Daviot Cremation Cemetery	Urnfield or cemetery
191 Carperby	Probable BA enclosed cremation cemetery, less likely – embanked stone circle
591 Belhie (305)	Enclosed cremation cemetery
240 Kimpton	Cremation cemetery in use over a long period of time
237 Howick heugh	Enclosed cremation circle creating a mound. 4 Bronze Age burials
2 Aldwincle phase 2	Double ditched enclosure with burials and mortuary structures
230 Hanborough 3	BA-MBA date, enclosed cremation cemetery.

Table 4 above lists sites that are excluded from further analysis and are considered to be enclosed cremation cemeteries. These sites have been excluded from the analysis of this project, because they have a specific and clear primary use that evidences that they can be investigated as a group in their own right. Furthermore, these sites are not regularly identified as henge monuments in the majority of the literature. This term has also been used to describe the first phase of Stonehenge, yet Stonehenge appears to be firmly cemented within the henge category which raises a number of questions about how we categorise and separate sites. Henges are traditionally viewed as ceremonial centres, although are not viewed as funerary monuments. A number of the sites listed above do not conform to the traditional format of a henge monument, instead appearing to be constructed of embanked or ring cairn enclosures. However, others, including the Loanhead of Daviot Cremation Cemetery site are thought to resemble henge monuments (*Figure 20*).

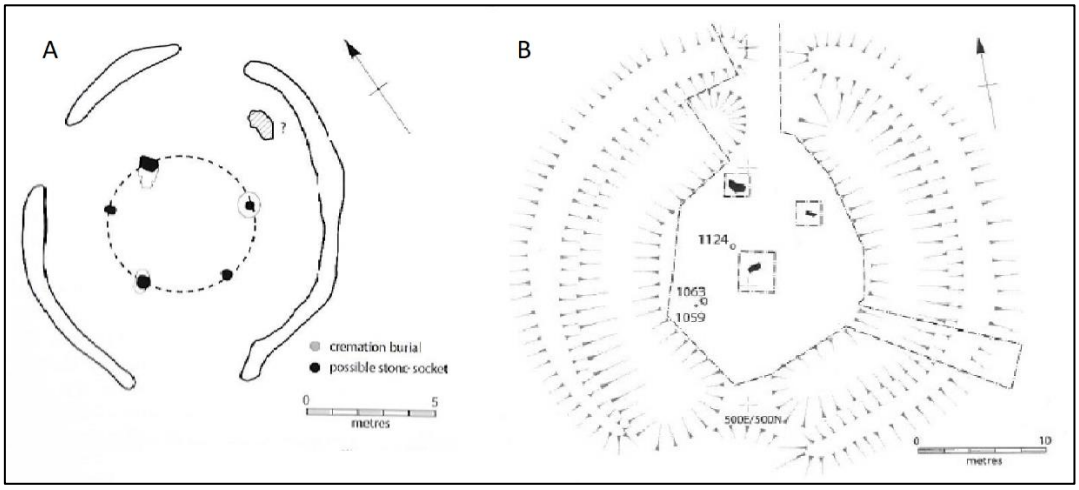


Figure 20: Site plan of Loanhead of Daviot (A) and Broomend of Crichie (B) (after Bradley 2011b)

Atkinson (1951: 91) saw this similarity as 'henge survival' – the superficial appearance but not the specific details are very similar to henges. Similarly, Richard Bradley notes the similarities in layout and sequence between the Loanhead of Daviot site and the Broomend on Crichie henge (*Figure 20*) (2011b: 93). Other sites appear to have been constructed as spaces for burial such as Aldwincle which consisted of an earthwork surrounding a structure of paired posts associated with the deposition of human remains. However, in its second phase, a substantial ditch was dug surrounding the site, associated with an external bank, leading it to be previously considered a henge during this second phase. At each site listed above, it is thought that function as a funerary monument coincided with the construction of the related earthwork or cairn structure.

5.2.2 Classification and the Classic Literature

Kendrick's first use of the term henge was followed by a number of publications that aimed to define, classify and catalogue these sites. From Grahame Clark (1936) through to Harding and Lee (1987), there were a number of attempts to redefine and subdivide the growing catalogue of sites; later attempts to revise the classifications were also made by Burl (1991) and Harding (2003) without an attempt at redefining a henge. A detailed review of these publications has already been included in chapter one, however this section aims to investigate the influence of these 'classic' publications on the current state of henge recording and description.

The figure below (*Figure 21*) shows the distribution maps generated from the database, relating to sites that were used, listed or discussed in each of the main classification publications (Kendrick in Kendrick and Hawkes 1932; Clark 1936; Piggott and Piggott 1939; Atkinson 1951; Burl 1969; Wainwright 1969; Catherall 1971; Clare 1986; and Harding and Lee 1987). Arguably the most influential publication has been Harding and Lee 1987, with the largest number of sites in HER records citing this catalogue as a main source. Harding and Lee was also the last publication to attempt to create a precise definition for use of the term 'henge' by sticking to a set criteria for a site to be listed as a classic henge in their final book.

Furthermore, looking at the descriptions included within the HER entries for those sites that have been excluded from further analysis due to a lack of information or likely/definite re-categorisation as non-henge sites, the most common classification term used (apart from henge itself) was 'hengiform' (see *Table 5* below). This highlights that within even this small sample of sites the introduction of the term hengiform was particularly significant in the increase of sites being included within the henge category. Whilst those classified or previously thought of as henge monuments were often referred to as henges, these entries often used qualifiers such as 'possible' or 'potential' and only a few site descriptions specified the perceived 'class' of the henge. As the table below shows, classes are not regularly used in the HER/NMR description of these sites, perhaps not unsurprisingly as those which are regularly grouped within the class I/class II clusters are also generally considered to be classic or definite henge monuments – these terms are less likely to be applied to sites that are dubious or uncertain.

Table 5: The number of excluded sites that were described using literature in the classification publications up to 1987 in the HER/NMR entry

Classification literature language	Number of sites with this description within the HER record
Class I henge	3
Class II henge	3
Hengiform	57
Mini-henge/small henge	5

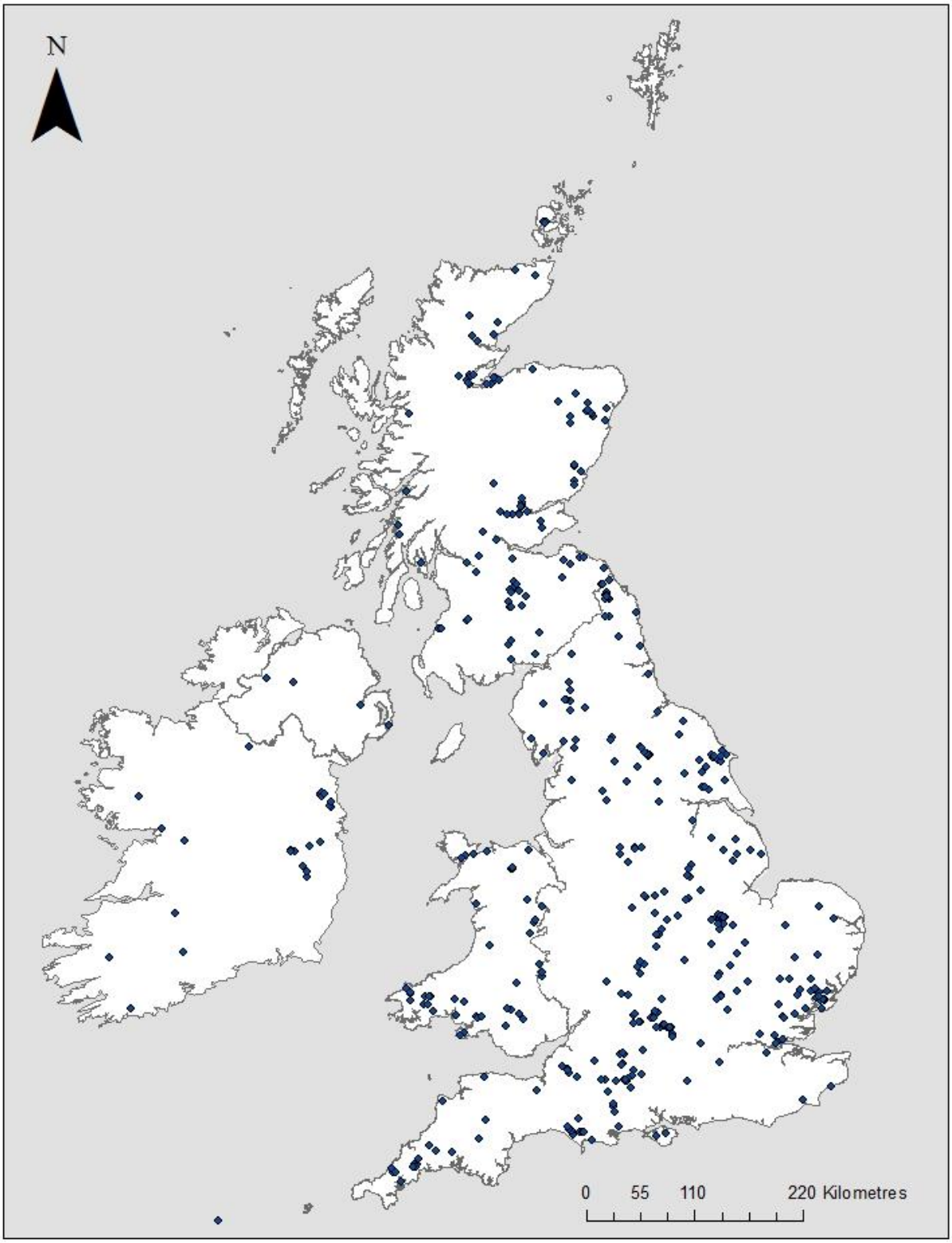


Figure 21: Map showing the distribution of all sites in the classification literature up to 1987

The common use of the term hengiform is interesting and deviates from its original meaning as specified by Wainwright (1969). He considered a hengiform as a type of monument that

possesses henge-like characteristics - i.e. internal ditches and one or more entrances - but is of a much smaller size than his parameters for a henge (he considered sites less than 100ft/c. 30m in diameter to be hengiforms). In common current usage, however, the term hengiform has seemingly been applied to sites that appear henge-like in shape, but lack dating evidence. This suggests that the term has become linked with uncertainty, in reference to a site with henge-like characteristics regardless of size. However, the term hengiform immediately links a site with henge monuments and extends the already stretched limitation as to what can be described or classified as a henge or related site.

5.2.3 Discussion

This section has highlighted the variation in sites identified and included within the henge classification systems of Kendrick (1932) to Harding and Lee (1987) and all those in between. Between 1932 and 1987 the number of sites under consideration as henge monuments increased exponentially. The similarity of form between a number of archaeological site types is evident in the large number of sites that have since been reassessed or investigated resulting in the reclassification as a non-henge site (451; see *Table 3*). Looking at the descriptions included within this number the term that appears most often is 'hengiform', it does appear that this term has over time become a term of uncertainty, used to refer to sites that are henge-like in basic appearance. One such example is the cropmark site of Ailsworth which was suggested to be a hengiform although 'the cropmark evidence makes this a tenuous suggestion at best' (Pastscape, monument no.350375), other sites in the vicinity are associated with a WWII prisoner of war camp and it is not certain whether the circular cropmark is associated with the camp or a separate archaeological site such as a hut circle. Other relatively modern sites, such as WWII gun placements, have also being assumed to be henge-related despite the relatively recent nature of the sites. Most telling is the effect that this has had through to the present day – the sense of uncertainty can be seen in current, public-facing, definitions:

> '*HENGIFORM MONUMENT - A small, circular Late Neolithic/Early Bronze Age enclosure which bears a morphological resemblance to henges but may belong to another category of circular earthwork-defined monuments, or is enclosed by something other than a bank and ditch*.' (Pastscape)

Although linking a hengiform to the general period of most henge monuments, the definition above does highlight the ambiguity around its use, uses which could be said of a number of other contemporary sites.

So how do we combat the growing number of sites deemed to be henges based on little investigatory information? And perhaps there is a wider suggestion regarding the recording of sites in HER or NMR databases. One suggestion would be to avoid registering sites as belonging to specific types or classes of monument, unless there is a solid argument to do so. Sites which are recognised as archaeological and perhaps conform to the shape of a number of site types, should perhaps instead be labelled as unknown site -prehistoric to modern, therefore, removing the loaded association of certain terms until information is available to correctly identify sites as period-specific or even 'type'-specific. Perhaps a multiple option dropdown box could be used to suggest multiple possible options whilst retaining the main classifying group as 'uncertain' site or circular enclosure. This uncertainty is also a reflection of the poor recognition of monuments that have a similar ground plan, highlighting how important contextual knowledge is in identifying unexcavated sites.

This focus and interest in the organisation of henge monuments, as discussed above and outlined in detail in *Chapter 2* has led to a large number of sites being identified or referred to as henge monuments (or henge-related) since 1932. Due to this and the wide variety of form, size and setting of sites within this group, it has become apparent that such a clear structured classification system, as suggested by many of the authors discussed in Chapter 2, does not quite work for the sites currently being added to this ever-growing group. What is needed, is a re-assessment of the sites included within this group to see if there are repeated patterns which could highlight and support the notion of henges as a type of site.

5.3 Analysis: the form of a henge

5.3.1 Introduction

One of the most significant criticisms of typologies and sub-classification based on morphological grounds, is that it causes sites such as henge monuments to be perceived as 'supposedly unchanging relics of the past' (Younger 2016: 116). As outlined in earlier chapters, previous attempts at classification and henge type definition were based almost exclusively on morphological factors, viewing the site as a flat, complete, and single stage construction.

This section seeks to reassess the current dataset of sites deemed henge-related in order to see if such a simple morphological analysis reveals a clear site type, or whether any patterns are the result of recording influence from early henge definitions. Queries then look at the relationships between specific types of features and the simple bank, ditch and entrance morphology dismissing sequence and dating evidence to continue with a chronologically flat analysis.

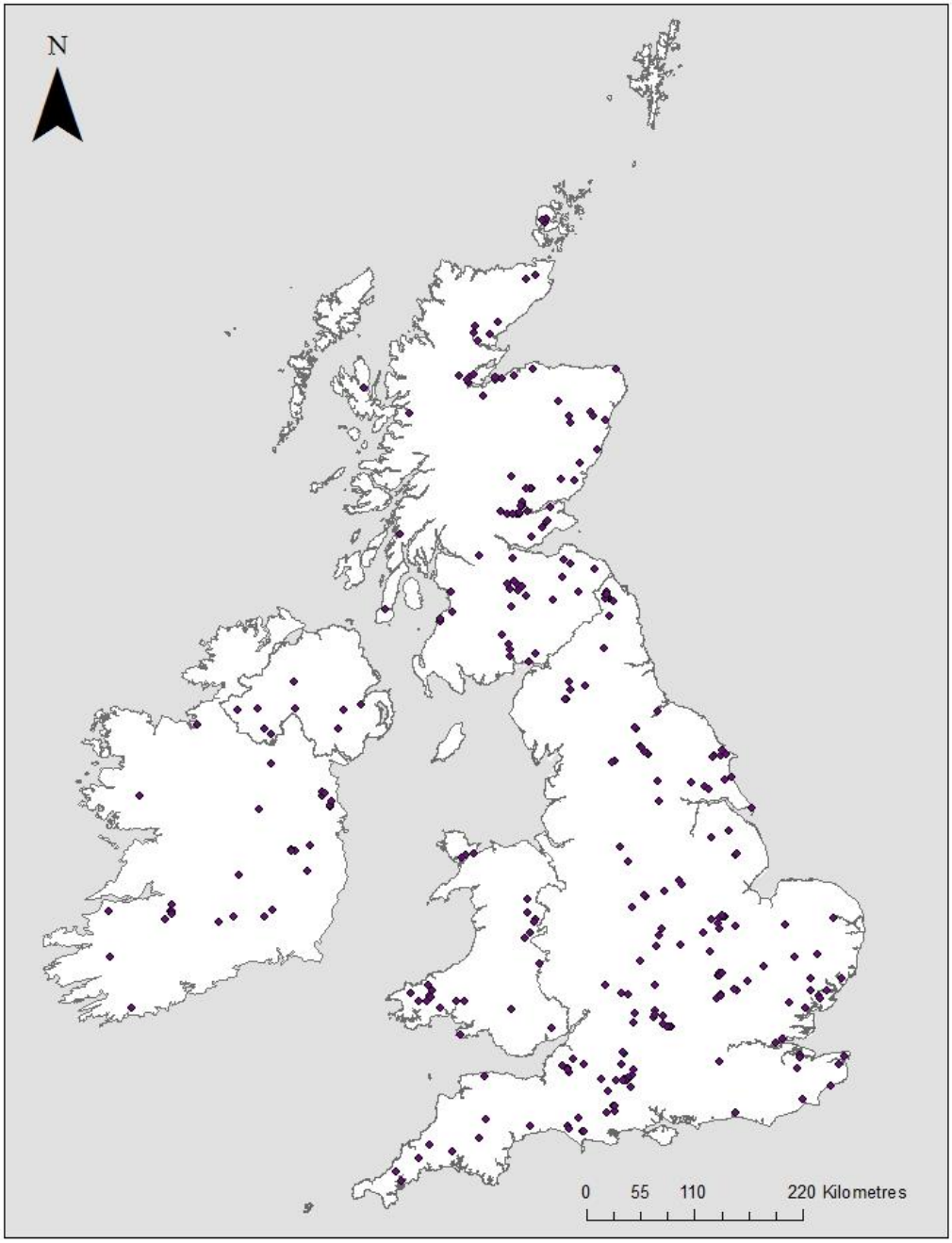


Figure 22: Map showing the sites included within analysis during this chapter (total = 358); sites currently considered to be henge-related

5.3.2 Form & Morphology

This section looks at the chronologically flattened overall morphology of sites within the dataset. *Table 6* below highlights each form query specifying the number of ditches, banks, and entrances (where known). Each query includes both clear numbers and also sites where a field could have an uncertain entry (e.g. **?1** entrance – meaning that there is a possible entrance identified). The table includes total numbers of sites returned within each query and the percentage of sites returned in relation to the number of sites excavated.

As the table below shows, 45.5% of all sites included in the analysis were excavated to some degree. This highlights the number of cropmark and earthwork sites, and sites which have yet to have any detailed excavation, which have been classified as henge-related. The table clearly shows that the majority of sites fit within the morphology queries of 1 bank and 1 ditch (170 sites in total) and 1 ditch 0 bank (133 sites in total) – these represent 47.6% and 37.1% of the total number of included sites, respectively.

The number of sites excavated is significant when those with no evidence of a bank are included. Banks are often only visible dependent on the historical use of the landscape; cultivation, construction and animal grazing all have an impact on the visible remains of sites. Banks are also visible as cropmarks if some of the bank material survives below the topsoil. The majority of cropmarks that survive and are recognised are the negative outlines of ditches, therefore banks are often only seen during excavation, by the presence of buried bank deposits or unequal ditch fills that are suggestive of infill from the direction of a bank. Of the 133 sites that consisted of 1 ditch and 0 banks only 33.8% had seen any excavation, therefore just under 2/3 of the sites may yet have evidence of a bank that is invisible until excavated. Sites which fall under the 'Included*/*1 Bank/NULL Ditch' category tend to be in Ireland and are often referred to as Irish henges or embanked enclosures and were discussed by Burl as being class Ic or IIc henges (see *Chapter 2* for a discussion).

Table 6: The number of sites returned from simple form queries, also showing the number of those sites which have been excavated

Query	Number of sites	Number of sites excavated	Excavated sites % (1DP)	'type' and reference	Examples
Included*/*1 Bank/*1 Ditch	170	94	55.3		
Included*/*1 Bank/*1 Ditch/NULL Entrance	37	10	27		Priddy N. (circle 4)
Included*/*1 Bank/*1 Ditch/*1 Entrance	84	53	63.1	Class I (Piggott and Piggott 1939)	Yarnbury
Included*/*1 Bank/*1 Ditch/*2 Entrance	44	28	63.6	Class II (Piggott and Piggott 1939)	Maidens Grave
Included*/*1 Bank/*1 Ditch/*3 Entrance	3	1	33.3		Knowlton Centre
Included*/*1 Bank/*1 Ditch/*4 Entrance	2	2	100		Avebury, Mount Pleasant
Included*/*1 Bank/*2 Ditch	13	8	61.5		
Included*/*1 Bank/*2 Ditch/NULL Entrance	1	1	100		Cotton Henge
Included*/*1 Bank/*2 Ditch/*1 Entrance	5	3	60	Class Ia (Burl 1969)	Norton Henge
Included*/*1 Bank/*2 Ditch/*2 Entrance	7	4	57.1	Class IIa (Atkinson 1951)	Thornborough
Included*/*1 Bank/*3 Ditch	1	0	0		
Included*/*1 Bank/*3 Ditch/NULL Entrance	1	0	0		Shotisham
Included*/*2 Bank/*2 Ditch	2	2	100		
Included*/*2 Bank/*2 Ditch/NULL Entrance	1	1	100		Easington
Included*/*2 Bank/*2 Ditch/*2 Entrance (Both banks Ext)	1	1	100		Thornborough S
Included*/*4 Bank/*2 Ditch	1	1	100		
Included*/*4 Bank/*2 Ditch/*1 Entrance	1	1	100		Dry Burn Enclosure
Included*/*2 Bank/*3 Ditch	1	0	0		
Included*/*2 Bank/*3 Ditch/*2 Entrance	1	0	0		Newton Kyme
Included*/*3 Bank/*3 Ditch	2	2	100		
Included*/*3 Bank/*3 Ditch/NULL Entrance	2	2	100		Dorchester II Barford A
Included*/NULL Bank/*1 Ditch	133	45	33.8		
Included*/NULL Bank/*1 Ditch/NULL Entrance	35	14	40		Meini Gwyr
Included*/NULL Bank/*1 Ditch/*1 Entrance	55	21	38.2		Leadketty
Included*/NULL Bank/*1 Ditch/*2 Entrance	41	8	19.5		Ewart Park
Included*/NULL Bank/*1 Ditch/*3 Entrance	1	1	100		Ferrybridge hengiform 161
Included*/NULL Bank/*1 Ditch/*4 Entrance	1	1	100		Whitton Hill 1
Included*/NULL Bank/*2 Ditch	4	1	25		
Included*/NULL Bank/*2 Ditch/NULL Entrance	2	0	0		West Deeping
Included*/NULL Bank/*2 Ditch/*1 Entrance	2	1	50		Renhold henge
Included*/NULL Bank/*3 Ditch	4	1	25		
Included*/NULL Bank/*3 Ditch/NULL Entrance	2	1	50		Dorchester XI Fornham All Saints (176)
Included*/NULL Bank/*3 Ditch/*1 Entrance	1	0	0		Lechlade
Included*/NULL Bank/*3 Ditch/*2 Entrance	1	0	0		Thornhaugh
Included*/*1 Bank/NULL Ditch	17	4	23.5		
Included*/*1 Bank/NULL Ditch/NULL Entrance	10	2	20		Monknewtown
Included*/*1 Bank/NULL Ditch/*1 Entrance	2	0	0	Class Ic (Burl 1991)	Mayburgh

	Included*/*1 Bank/NULL Ditch/*2 Entrance	4	1	25	Class IIc (Burl 1991)	Catterick
	Included*/*1 Bank/NULL Ditch/*3 Entrance	1	1	100		Blackhouse Burn 1
Included*/*2 Bank/NULL Ditch		1	0	0		Ballynaclin
Included*/*2 Bank/*1 Ditch		7	3	42.9		
	Included*/*2 Bank/*1 Ditch/NULL Entrance	3	0	0		Thornaby Green
	Included*/*2 Bank/*1 Ditch/*1 Entrance	1	1	100		Tonafortes
	Included*/*2 Bank/*1 Ditch/*2 Entrance	3	2	66.7		Stonehenge
Included*/NULL Bank/NULL Ditch		2	2	100		
	Included*/NULL Bank/NULL Ditch/Null Entrance	2	2	100	Pit circle/timber circle sites	Welshpool Catholme 203
	TOTAL	358	163	45.5		

The table below (*Table 7*) shows each entry that returned zero sites. The queries tend to be of sites with high numbers of entrances or high numbers of banks and/or ditches. This is typically reflective of the basis of the concept of the classic henge and its static morphology of one ditch and one bank with one or two entrances. The majority of queries that returned zero entries had multiple banks and ditches.

Table 7: Form queries which returned zero sites

Query	Number of sites
Included*/*1 Bank/*1 Ditch/*3 Entrance/Int Bank 'YES'	0
Included*/*1 Bank/*1 Ditch/*4 Entrance/Int Bank 'YES'	0
Included*/*1 Bank/*2 Ditch/*3 Entrance	0
Included*/*1 Bank/*2 Ditch/*4 Entrance	0
Included*/*2 Bank/*2 Ditch/*1 Entrance	0
Included*/*2 Bank/*2 Ditch/*3 Entrance	0
Included*/*2 Bank/*2 Ditch/*4 Entrance	0
Included*/*2 Bank/*3 Ditch/NULL Entrance	0
Included*/*2 Bank/*3 Ditch/*1 Entrance	0
Included*/*2 Bank/*3 Ditch/*3 Entrance	0
Included*/*2 Bank/*3 Ditch/*4 Entrance	0
Included*/*3 Bank/*2 Ditch	0
Included*/*4 Bank/*2 Ditch/NULL Entrance	0
Included*/*4 Bank/*2 Ditch/*2 Entrance	0
Included*/*4 Bank/*2 Ditch/*3 Entrance	0
Included*/*4 Bank/*2 Ditch/*4 Entrance	0
Included*/*4 Ditch	0

In Deleuzian terms, this maps out the virtual space from which actual henges emerged, highlighting the various forms that henges *could* have obtained but that never occurred, therefore defining the limits of what a henge is. This pattern supports the notion of a limited amount of morphological variation in the form of henges, with the majority falling within 1-2 ditch-bank circuits and 1-2 entrances. This clustering supports the notion that henges are

identifiable as a monument type; however, it is also important to consider the influence of archaeological identification and the impact of early terminology and type definition. Are there sites out there that could be linked to this group, but which have not been identified or referred to as henge monuments; essentially could there be sites 'out there' that we just have not found yet?

Figure 23 below 'maps' out the forms above and shows the majority of actual sites fall within the one ditch and one ditch-one bank variation. The 'map' outlines ditch only forms, through a web of mixed bank and ditch variations and returns to bank only forms. The dashed lines indicate where the forms change from being ditch or bank only to a ditch AND bank form. The ditch-only sites could be lacking the evidence of an associated bank, or if in the case of unexcavated cropmarks – the surviving remains of a bank could have been removed through ploughing; similarly for unexcavated bank only sites ditches may still remain uncovered (*Table 6* highlights the number of sites excavated).

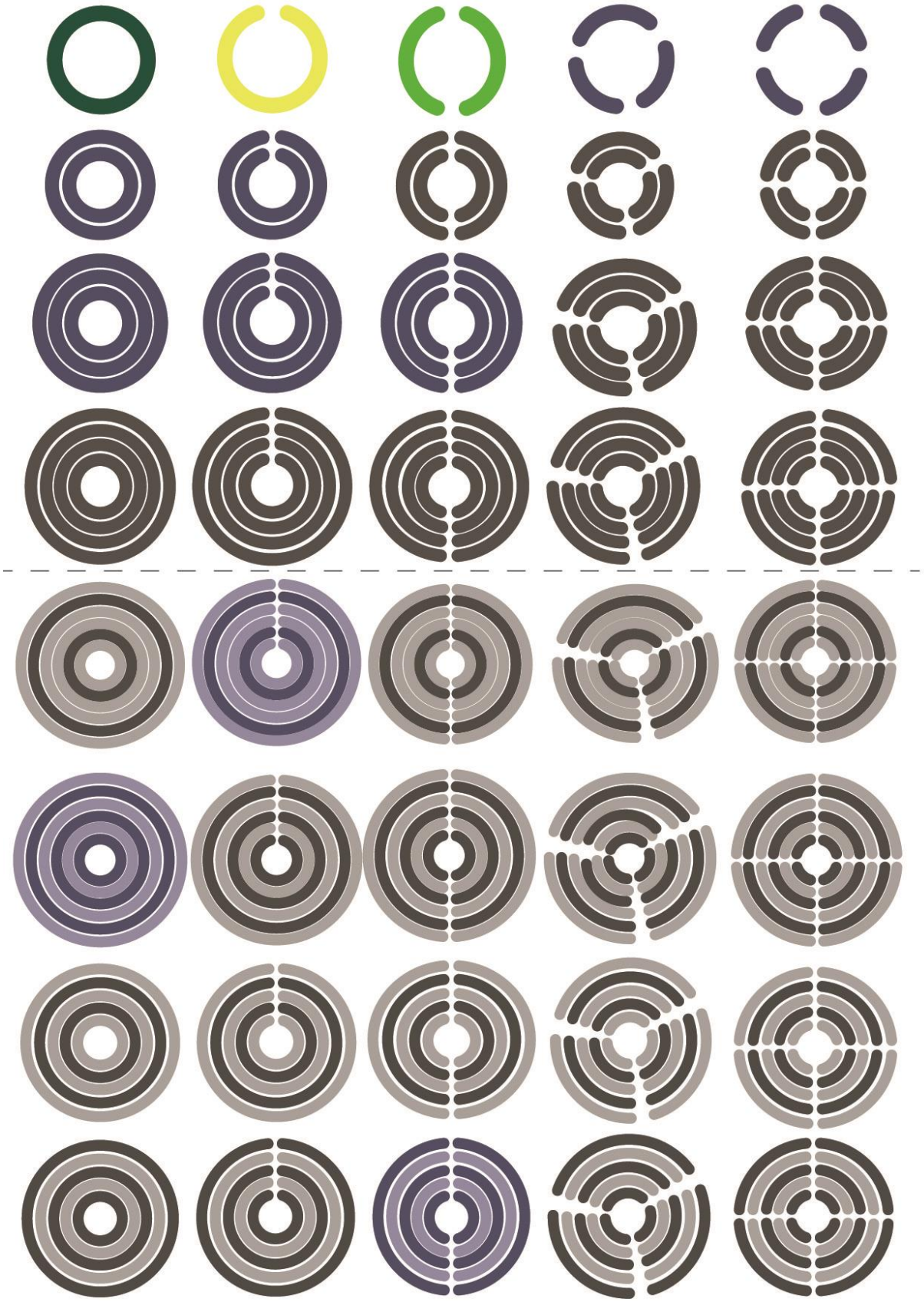
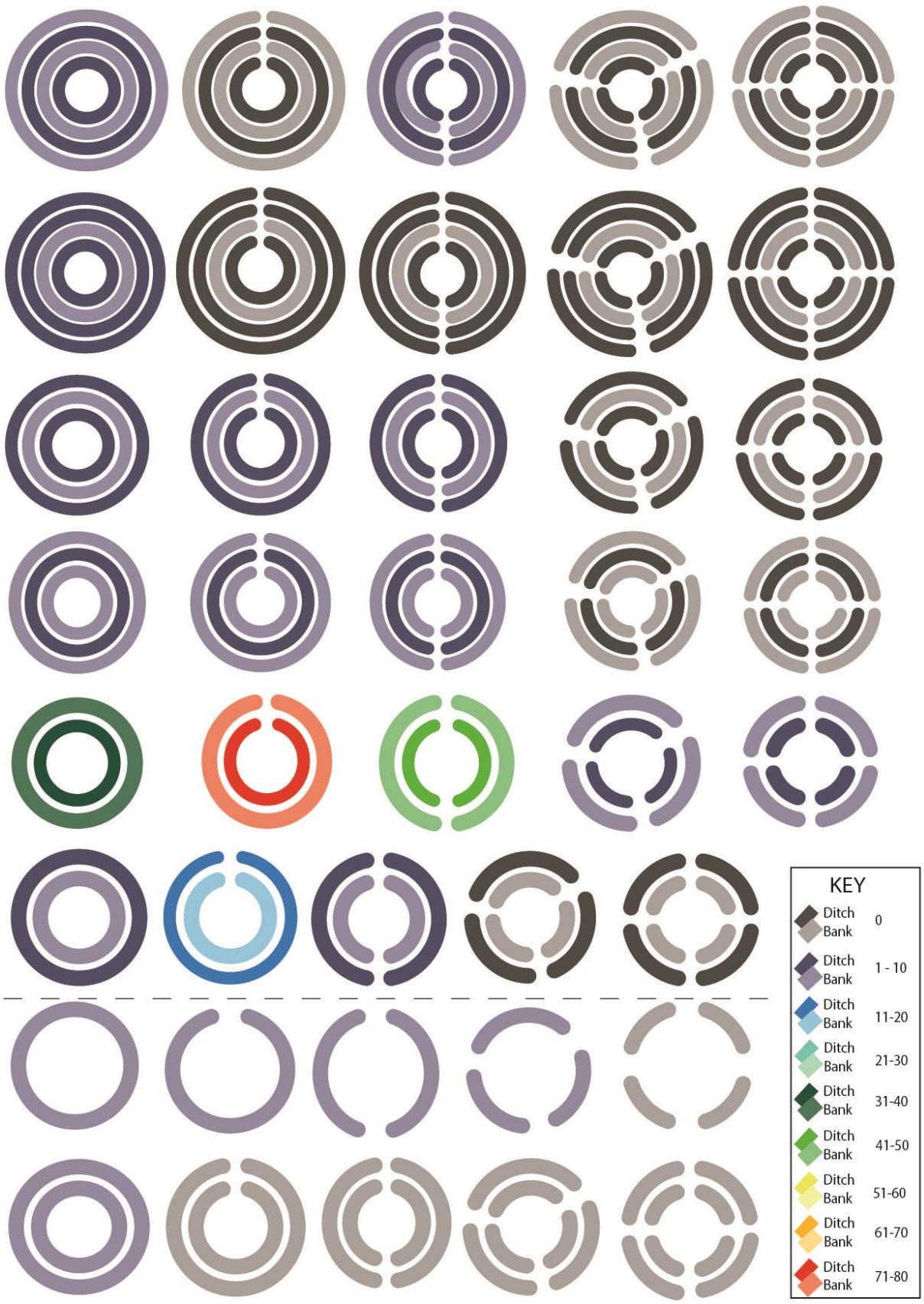


Figure 23: Mapping out henge form (over two pages)


KEY
Ditch Bank 0
Ditch Bank 1 - 10
Ditch Bank 11-20
Ditch Bank 21-30
Ditch Bank 31-40
Ditch Bank 41-50
Ditch Bank 51-60
Ditch Bank 61-70
Ditch Bank 71-80

However, as can be seen in *Table 6* above there are a number of sites that fall outside of the traditional definition of a henge monument. The '1 ditch 1 bank' queries that returned zero entries both had an internal bank and multiple entrances. The previous table does, however, highlight that some sites with a single internal bank with one or two entrances are within the dataset and have been classified as henge related monuments.

The table below (*Table 8*) displays the number of sites for each query within the single bank and ditch category, including the position of the bank in relation to the ditch. The largest number of sites lie within the 'external bank' column, with the largest return being for sites with a single entrance – the typical form based on the traditional classic definition.

Table 8: Bank placement queries relating to 1ditch 1bank sites

Bank external to the ditch		Bank internal to the ditch	
Single ditch with single bank			
Included*/*1 Bank/*1 Ditch/Null Entrance/Ext Bank 'YES'	31	Included*/*1 Bank/*1 Ditch/Null Entrance/Int Bank 'YES'	6
Included*/*1 Bank/*1 Ditch/*1 Entrance/Ext Bank 'YES'	72	Included*/*1 Bank/*1 Ditch/*1 Entrance/Int Bank 'YES'	12
Included*/*1 Bank/*1 Ditch/*2 Entrance/Ext Bank 'YES'	42	Included*/*1 Bank/*1 Ditch/*2 Entrance/Int Bank 'YES'	2
Included*/*1 Bank/*1 Ditch/*3 Entrance/Ext Bank 'YES'	3	Included*/*1 Bank/*1 Ditch/*3 Entrance/Int Bank 'YES'	0
Included*/*1 Bank/*1 Ditch/*4 Entrance/Ext Bank 'YES'	2	Included*/*1 Bank/*1 Ditch/*4 Entrance/Int Bank 'YES'	0

The categories with the lowest numbers of results bear particular attention in delineating the outer extent of the actual space of henges. Sites that fall within the '1 ditch 1 bank' group but have internal rather than external ditches, have been considered henge monuments even though the structure of the earthwork is reversed. Of the six sites of 'Included*/*1 Bank/*1 Ditch/Null Entrance/Int Bank 'YES'', the two that are found within Ireland and Northern Ireland have not been excavated, and both appeared to be reused in later periods.[5] Three of the remaining four have seen excavation and are all found in Southern Britain, all are also found in areas with a focus of Neolithic-Bronze Age sites such as barrows. Dorchester I appears to have been constructed with the intention of serving a burial function, with a number of cremation and inhumation remains and is part of a complex of similar ring ditches. Similarly, Priddy N. is found in a large complex of similar sites

[5] Cornashee (547) appears to be overlain by a mound associated with another enclosure circuit, whilst Newtown or Skirk (527) was reused as a motte and bailey.

but shares ties with Wauluds Bank for having a close association to water.[6] Priddy circles 1,2, and 3 all fall within the 'Included*/*1 Bank/*1 Ditch/*1 Entrance/Int Bank 'YES'' group. Three sites are found within Wales and the remainder are all found within southern Britain. Alongside the Priddy sites, Little Round Table, Wyke Down 2, Lord of the Manor Site 2D and Etton Landscape site 4 are all found within monument complexes. The remaining two sites fall within 'Included*/*1 Bank/*1 Ditch/*2 Entrance/Int Bank 'YES''; Longstone Rath in Ireland, which is noted as resembling a typical 'Irish henge' and surrounds a standing stone and inset cist within its centre, whilst Monkton-up-Wimbourne in Dorset is an unusual pit circle site that has a complex pit and shaft figuration within it and has previously been referred to as a formative henge (see Green 2000).

Mapping the form of henge monuments results in a picture that highlights the high number of sites with specific forms, amongst a vast range of form possibilities (see *Figure 23*). Circular earthworks form the vast majority of monuments during this period and *Figure 24* below shows the sites considered to be henge-related with reference to non-henge sites which have similar forms. The first phase of Stonehenge involved the creation of a circular earthwork enclosing an area 110m in diameter (c.3000-2920 cal BC). The bank is positioned inside the ditch circuit, which is the reverse to the traditional definition of a henge monument, and this has been the source of much debate as to the relationship between Stonehenge and henge monuments. Geophysics have suggested that there was once a substantial outer bank as well as a natural topographic scarp (David and Payne 1997). The association of cremation deposits with the ditch, bank and internal Aubrey holes marks the enclosure out as a cremation cemetery and the site at Aldwincle has a similar function. Ring cairns and barrows are often thought to be henge-related if they are known through form alone. Barrows and ring cairns also share similarities with some sites: disc barrows often have circuits of banks and ditches with breaks in the earthwork, whilst similarities between cairns and henge banks can be seen at sites such as Mayburgh (Cumbria).

[6] Wauluds Bank (150) has part of its ditch circuit formed by a river, whilst a number of springs rise to the surface within Priddy N. (circle 4) (128).

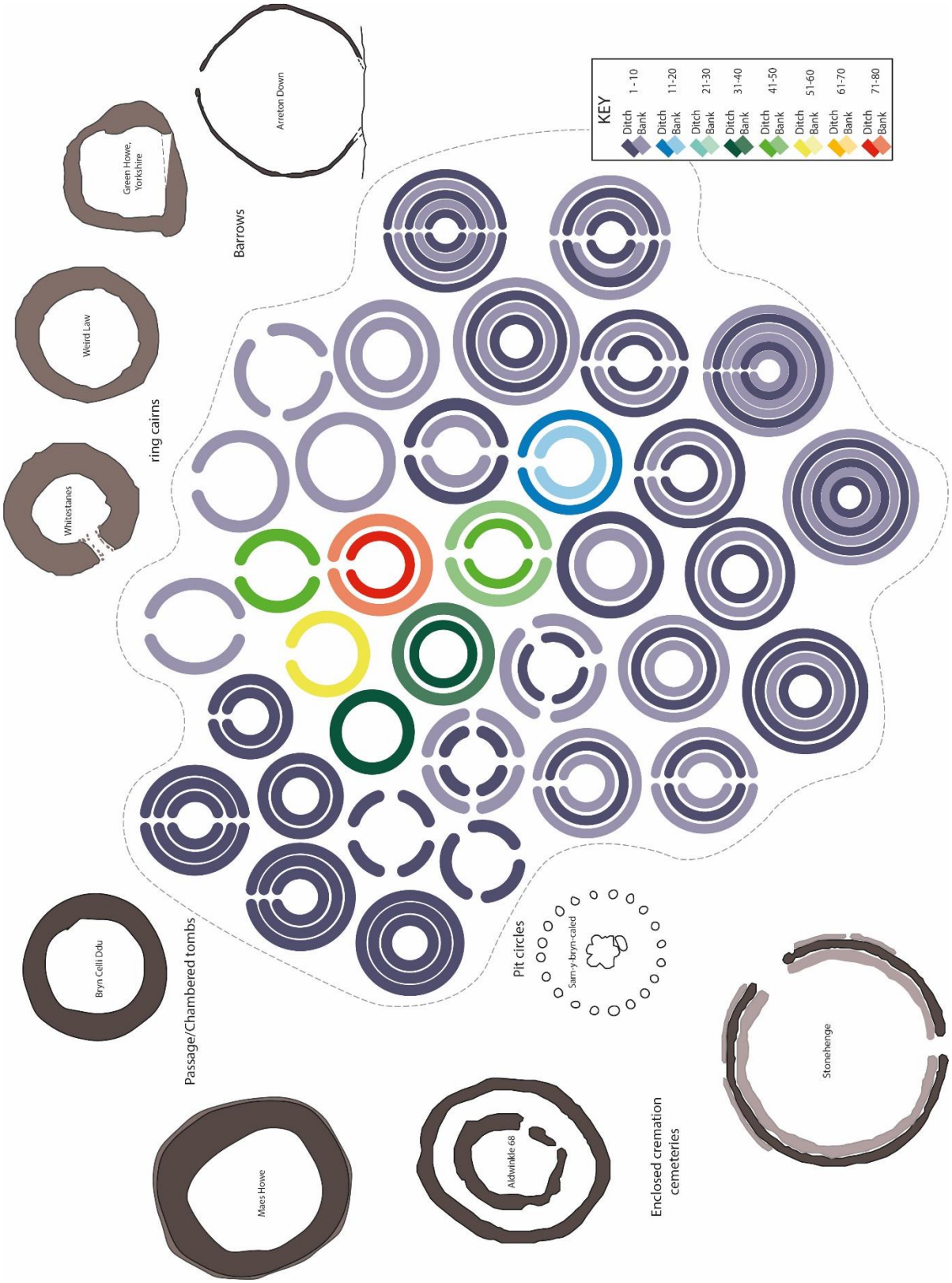


Figure 24: Mapping henge forms in relation to contemporary monuments[7]

The earthworks surrounding the tombs at Maes Howe and Bryn Celli Ddu have also been seen to represent a henge phase. Both sites have a wide ditch surrounding a central platform on which the tomb is sited (see *Figure 24*). The debate around Bryn Celli Ddu is still unclear, however Burrow has readdressed the site arguing that the ditch is best seen as a quarry ditch for the construction of the passage grave (2010) (see also Hemp 1930; O'Kelly 1969; Bradley 1998b). Evidence of a small external bank is present at Maes Howe and has recently been suggested for Bryn Celli Ddu (Burrow 2010). Although it is slight, the presence of an external bank makes the architecture of the surrounding earthwork like that of a henge. Pit and timber circles such as Sarn y Bryn Caled have a clear form in the archaeological record, however these are also comparable to henge sites in that they surround an internal space and similar features can be found within a henge (see *Section 5.4* below). The segmented nature in the construction of henge ditches mirrors the action of creating a circle of separate pits and in this sense the action of creation is very similar.

Figure 24 highlights the similarities in form between sites considered to be henges, and sites that sit outside of that space but exist as something else which has certain morphological similarities to henges. The difficulty is discerning when those lines that separate sites are drawn. As sites are constructed, at certain stationary points in time some sites will appear like others. The variation in size and form - even within the forms which show the concentrated variation in *Figure 23* and *Figure 24* - means that it is difficult to extend this idea of the 'actual' henge at this stage. Whilst it is clear that forms centred around 1 ditch circuit are most common, investigation beyond form alone is needed to suggest a clear henge type. The variation seen within *Figure 23* and *Figure* 24 suggests that there is not a clear boundary between henges and non-henge enclosures based upon form.

Figure 25 shows a pie chart that highlights the dominance of the class I/class II definition with many sites falling within the one or two entrance categories. The number of sites with no recorded entrance is interesting, however this is affected by the number of unexcavated cropmark sites – ploughing can blur and remove clear causeways.

[7] Ground plan references: Green Howe (after Wood 1972); Aldwincle (After Kinnes and Jackson 1971: fig1); Arreton Down (after Alexander and Ozanne 1960); Weird Law and Whitestanes (Ritchie and Maclaren 1972); Sarn y Bryn Caled (after Gibson 1994); Bryn Celli Ddu (after Burrow 2010); Maes Howe (after Stones of Wonder); Stonehenge (after Parker Pearson *et al.* 2009).

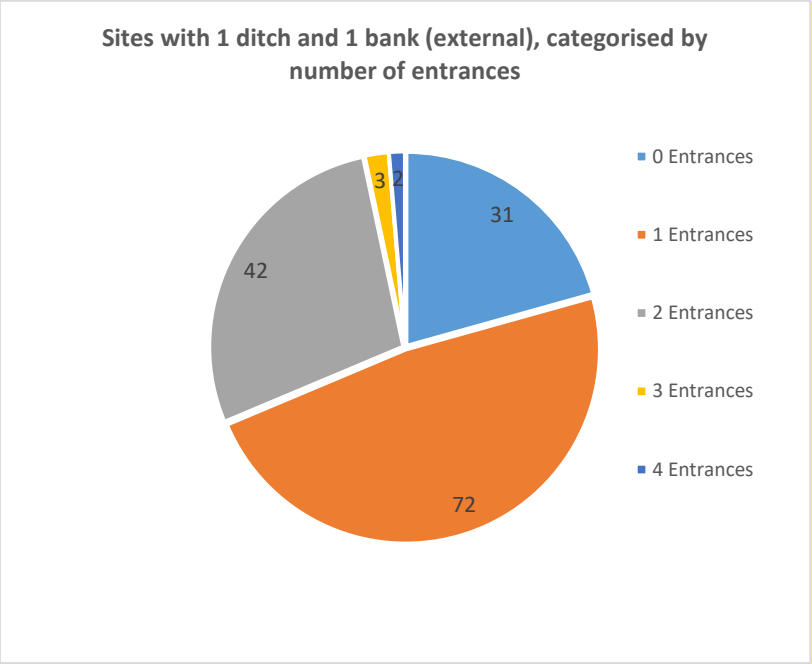


Figure 25: Pie chart showing the number of sites with entrances from Table 8

Table 9 and the pie chart below (*Figure 26*) show the number of sites based upon number of entrances. The table highlights the high proportion of all sites which have 1/?1 entrance (42.3%) and 2/?2 entrances (28.3%); it also highlights that 27.2% of sites had zero entrances or no clear evidence of an entrance. Although several sites have no clear entrance, they are often given the benefit of the doubt and still included within the henge class – probably due to the assumption that without excavation it is impossible to be sure that there are no causeways through a visible cropmark ditch.

Table 9: The number and percentage of sites with confirmed or possible entrances

Number of entrances	Number of included sites	**%** of sites (1DP)
Zero/No clear entrance	97	27.1
1 entrance	148	41.3
?1 entrance	3	0.8
2 entrances	99	27.7
?2 entrances	3	0.8
3 entrances	5	1.4
4 entrances	3	0.8
TOTAL	**358**	

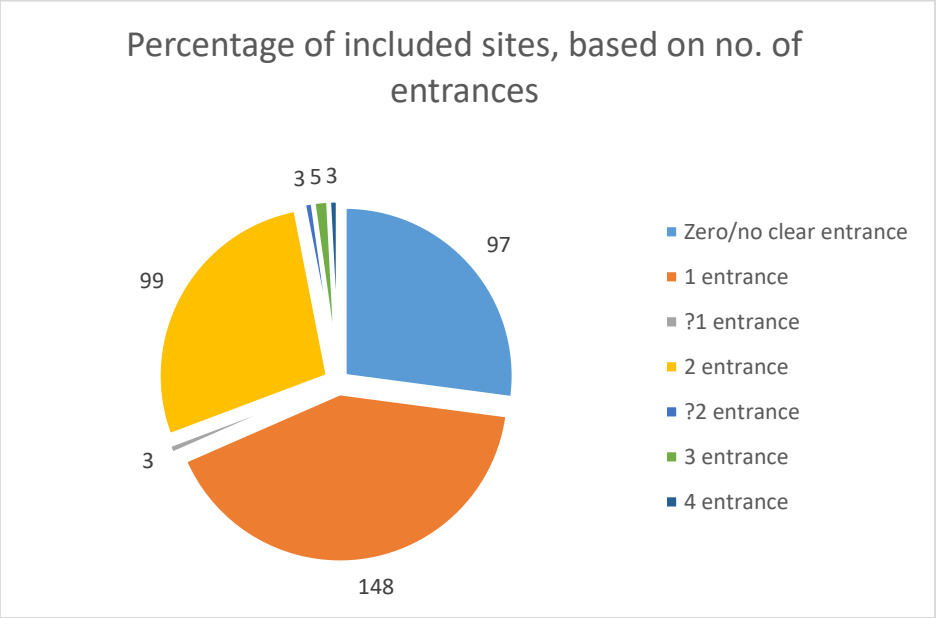


Figure 26: Pie chart showing the number of sites with each number of entrances

5.3.3 Ditch-Interior Ratio

A comment that is often made towards henge monuments is the observation that the ditches appear to be broad in comparison to the diameter of the interior. Harding and Lee refer to this for sites they termed 'classic henges' in their 1987 study and catalogue of henge monuments in the British Isles – this influenced their decision to include a criteria of ditch width >2.5m in order for a site to be included as a classic henge (1987: 41); similarly Richard Bradley has also argued that Scottish sites have disproportionally wide ditches in comparison to the inner area enclosed (2011b). This is often seen as a distinctive feature and supports the notion that these were not just functional spaces, due to the effort and time needed to create such large ditched enclosures. In order to investigate how characteristic this is of henges, the ratio for each site that had width information was calculated. The range highlights the variation in ditch/interior ratio within each form query – each range is relatively large with some of the larger Wessex 'henge enclosures' extending the range. That being said, amongst the variation visible in the table below (*Table 10*) there does appear to be a pattern when looking at the modal ratio, highlighted in yellow: for those queries that fall within the standard actual henge forms (e.g. 1 bank, 1 ditch, 1-2 entrances) the modal (most-often) ratio does suggest that the ditch is often relatively broad in comparison to the size of the interior space (1:2 to 1:6).

Table 10: The average ditch width to internal diameter ratios (ratios rounded to the nearest whole number)

Form Query	No.	Median (1DP)	Mode	Mean (1DP)	Standard Deviation (1DP)	Range (L-H)
Included*/*1 Bank/*1 Ditch	107/170	1:6	1:5	1:10.9	± 14.8	1:2 – 1:110
Included*/*1 Bank/*1 Ditch/NULL Entrance	15/37	1:5	1:4	1:16.5	± 29.0	1:4 – 1:110
Included*/*1 Bank/*1 Ditch/Null Entrance/Ext Bank 'YES'	13/31	1:5	1:4	1:16.3	± 30.9	1:4 – 1:110
Included*/*1 Bank/*1 Ditch/Null Entrance/Int Bank 'YES'	2/6	1:18	-	1:18	± 17.0	1:6 – 1:30
Included*/*1 Bank/*1 Ditch/*1 Entrance	56/84	1:7	1:2/1:3	1:9.7	± 12.2	1:2 – 1:82
Included*/*1 Bank/*1 Ditch/*1 Entrance/Ext Bank 'YES'	50/72	1:6.5	1:2/1:3	1:9.3	± 12.6	1:2 – 1:82
Included*/*1 Bank/*1 Ditch/*1 Entrance/Int Bank 'YES'	6/12	1:10.5	1:6	1:13	± 9.0	1:6-1:30
Included*/*1 Bank/*1 Ditch/*2 Entrance	34/44	1:7	1:5	1:9.7	± 8.1	1:3 – 1:39
Included*/*1 Bank/*1 Ditch/*2 Entrance/Ext Bank 'YES'	34/42	1:7	1:5	1:9.7	± 8.1	1:3 – 1:39
Included*/*1 Bank/*1 Ditch/*2 Entrance/Int Bank 'YES'	0/2	-	-	-	-	-
Included*/*1 Bank/*1 Ditch/*3 Entrance	1/3	1:19				
Included*/*1 Bank/*1 Ditch/*3 Entrance/Ext Bank 'YES'	1/3	1:19				
Included*/*1 Bank/*1 Ditch/*4 Entrance	1/2	1:32				
Included*/*1 Bank/*1 Ditch/*4 Entrance/Ext Bank 'YES'	1/2	1:32				
Included*/*1 Bank/*2 Ditch	8/13	1:8	1:6/1:8	1:10.8	± 6.6	1:3 – 1:20
Included*/*1 Bank/*2 Ditch/NULL Entrance	0/1	-				
Included*/*1 Bank/*2 Ditch/*1 Entrance	2/5	1:11.5	-	1:11.5	± 12.0	1:3 – 1:20
Included*/*1 Bank/*2 Ditch/*2 Entrance	6/7	1:8	1:6/1:8	1:10.5	± 5.6	1:6 – 1:19
Included*/*1 Bank/*3 Ditch	0/1	-				
Included*/*1 Bank/*3 Ditch/NULL Entrance	0/1	-				
Included*/*2 Bank/*2 Ditch	1/2	1:7				
Included*/*2 Bank/*2 Ditch/NULL Entrance	0/1	-				
Included*/*2 Bank/*2 Ditch/*2 Entrance (Both banks Ext)	1/1	1:7				
Included*/*4 Bank/*2 Ditch	1/1	1:17				
Included*/*4 Bank/*2 Ditch/*1 Entrance	1/1	1:17				
Included*/*2 Bank/*3 Ditch	0/1	-				
Included*/*2 Bank/*3 Ditch/*2 Entrance	0/1	-				
Included*/*3 Bank/*3 Ditch	0/2	-	-	-	-	-
Included*/*3 Bank/*3 Ditch/NULL Entrance	0/2	-	-	-	-	-
Included*/NULL Bank/*1 Ditch	60/133	1:8	1:3/1:5/1:8	1:11	± 9.9	1:2 – 1:49
Included*/NULL Bank/*1 Ditch/NULL Entrance	10/35	1:7.5	1:8	1:7.6	± 3.6	1:3 – 1:14
Included*/NULL Bank/*1 Ditch/*1 Entrance	25/55	1:7	1:3	1:8.3	± 10.0	1:2 – 1:49
Included*/NULL Bank/*1 Ditch/*2 Entrance	23/41	1:10	1:5/1:8/1:15	1:13	± 11.3	1:2 – 1:49
Included*/NULL Bank/*1 Ditch/*3 Entrance	1/1	1:24				
Included*/NULL Bank/*1 Ditch/*4 Entrance	1/1	1:5				
Included*/NULL Bank/*2 Ditch	1/4	1:6				
Included*/NULL Bank/*2 Ditch/NULL Entrance	0/2	-	-	-	-	-
Included*/NULL Bank/*2 Ditch/*1 Entrance	1/2	1:6				
Included*/NULL Bank/*3 Ditch	1/4	1:8				
Included*/NULL Bank/*3 Ditch/NULL Entrance	1/2	1:8				
Included*/NULL Bank/*3 Ditch/*1 Entrance	0/1	-				
Included*/NULL Bank/*3 Ditch/*2 Entrance	0/1	-				
Included*/*1 Bank/NULL Ditch	17					
Included*/*1 Bank/NULL Ditch/NULL Entrance	10					
Included*/*1 Bank/NULL Ditch/*1 Entrance	2					
Included*/*1 Bank/NULL Ditch/*2 Entrance	4					
Included*/*1 Bank/NULL Ditch/*3 Entrance	1					
Included*/*2 Bank/NULL Ditch	1					
Included*/*2 Bank/*1 Ditch	4/7	1:15.5	-	1:15.8	± 10.2	1:6 – 1:26
Included*/*2 Bank/*1 Ditch/NULL Entrance	1/3	1:26				
Included*/*2 Bank/*1 Ditch/*1 Entrance	1/1	1:8				
Included*/*2 Bank/*1 Ditch/*2 Entrance	2/3	1:14.5	-	1:14.5	± 12.0	1:6 – 1:23
Included*/NULL Bank/NULL Ditch	2					
Included*/NULL Bank/NULL Ditch/Null Entrance	2					

The scatter plot below (*Figure 27)* displays the width data in a visual format. The sites are generally clustered in and around the line of best fit; the four clear outliers are the large Wessex henge-enclosures which would be considered to conform to an exponential trend line (highlighted in orange).[8] The plot does appear to tentatively suggest a relatively broad ditch to interior diameter – the majority of sites are smaller than 100m, but the majority also clusters up to 5m maximum ditch width diameter and up to 50-60m diameter. We may have perhaps expected to see the main cluster of sites positioned slightly further along the x-axis. The second cluster (highlighted within an orange circle) is perhaps most interesting as the sites sit low on the y-axis, but further along the x-axis, suggesting a relatively broad ditch c.10-20m wide, with a diameter less than 100m suggesting a broad ditch to diameter ratio. Most sites within the orange circle fall within the single ditch external bank group and have one or two entrances, but their locations cover the entire British Isles.[9] Approximately half of the sites have been excavated and show a variety of internal features including barrows, timber circles, pit and postholes. The landscape locations also differ between valley floors, gravel ridges and low knolls, to hilltops. A group of sites can be seen to clearly sit above the line of best fit (circled in red), with a ditch width of 1-5m, but a large interior area with a diameter c. 100-200m. Those within the red circle have a similar size and form but vary in location across the British Isles.[10] A small group of 4 sit below the line of best fit, with a ditch width between 15-20m, these sites have very broad ditches in relation to the interior diameter of the enclosure. Walkington in Yorkshire is a cropmark site with an overall diameter close to 100m, it has a single ditch that is estimated to vary between 9-19.5m in width. The other three sites are the centre and northern henges at Thornborough which have an interior 100m in diameter, and a ditch c.18m wide, and King Arthurs Round Table in Cumbria with a ditch c.16m wide and an interior c. 51m in diameter.

[8] Wessex enclosures: Avebury, Durrington Walls, Marden, Mount Pleasant

[9] Sites within this orange group are: Rachan Slack, Round Hill, Castlewitch, Lindston, Northorpe, Garryard, Cana Barn, Newbigging (weston), Westwell, Lewenshope, Mortgage, Drumsonnus, Culzean Castle Policies High Whiteside, Vaynor Farm, Castilly, Forteviot henge 1, Picts Knowe, Llandegai A, Arbor Low, Devils Quoits, North Mains I, Nunwick, Maidens Grave, Arminghall, Radley.

[10] Friarstown 1 & 2, Overhowden, Octon Lodge, and Maxey Structures 14 +15 all have a single ditch and external bank, whilst Stonehenge and Priddy Circle N (circle 3) have different arrangements. Sites are found in Ireland, Scotland, and a number of counties across England.

The second scatter plot (***Error! Reference source not found.***) shows a clearer picture; this g raph visualised the ditch and interior width for sites that fall under the standard forms of 'classic henges' of 1 ditch, 1 external bank, and 1-2 entrances. There appears to be a similar variation to the plot above, however a number of those sites within the red circle of *Figure 27* have been removed; this is due to the presence of an internal bank in the case of Priddy Circle N. and zero entrances recorded for a number of the others. The dots are all plotted quite close to the line of best fit but there appears to be less grouping along the x-axis. The blue circle highlights some of the same group discussed above – the majority of which have not seen excavation and vary in location. Within this group lie two of the Yorkshire henges (Cana Barn and Nunwick), Arbor Low in Derbyshire, Devil's Quoits in Oxfordshire and the Scottish site North Mains I.

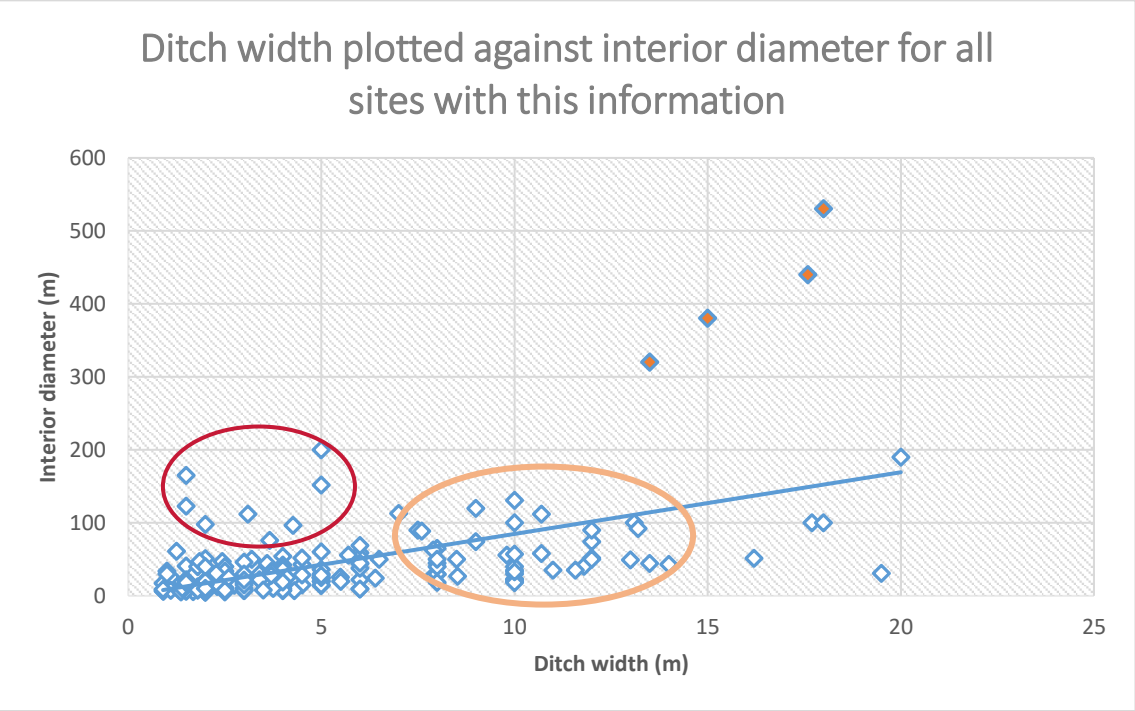


Figure 27: Scatter plot showing the ditch width information against the interior area for all included sites which provided these details

If we remove the largest sites and stretch out the Axis of *Figure 28* below, it shows the variation more clearly, and the grouped clusters appear to be more widespread (*Figure 29* below).

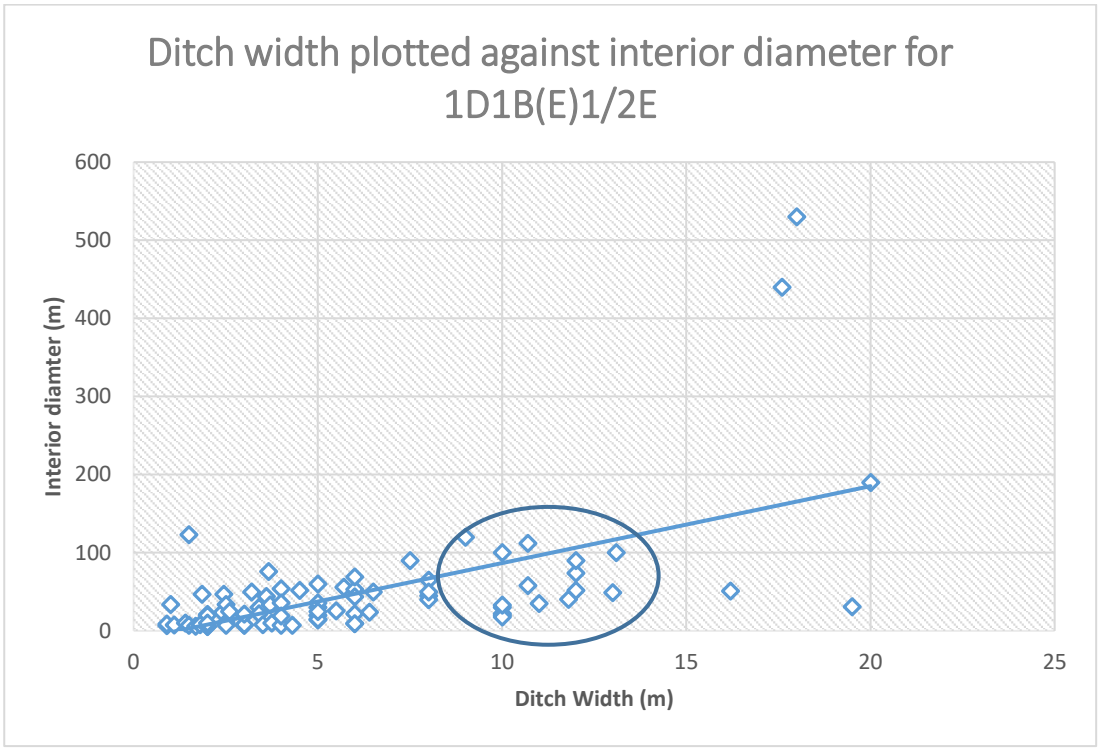


Figure 28: Graph showing the ditch width against interior diameter for all included sites with a form of 1D1B(external)1/2E

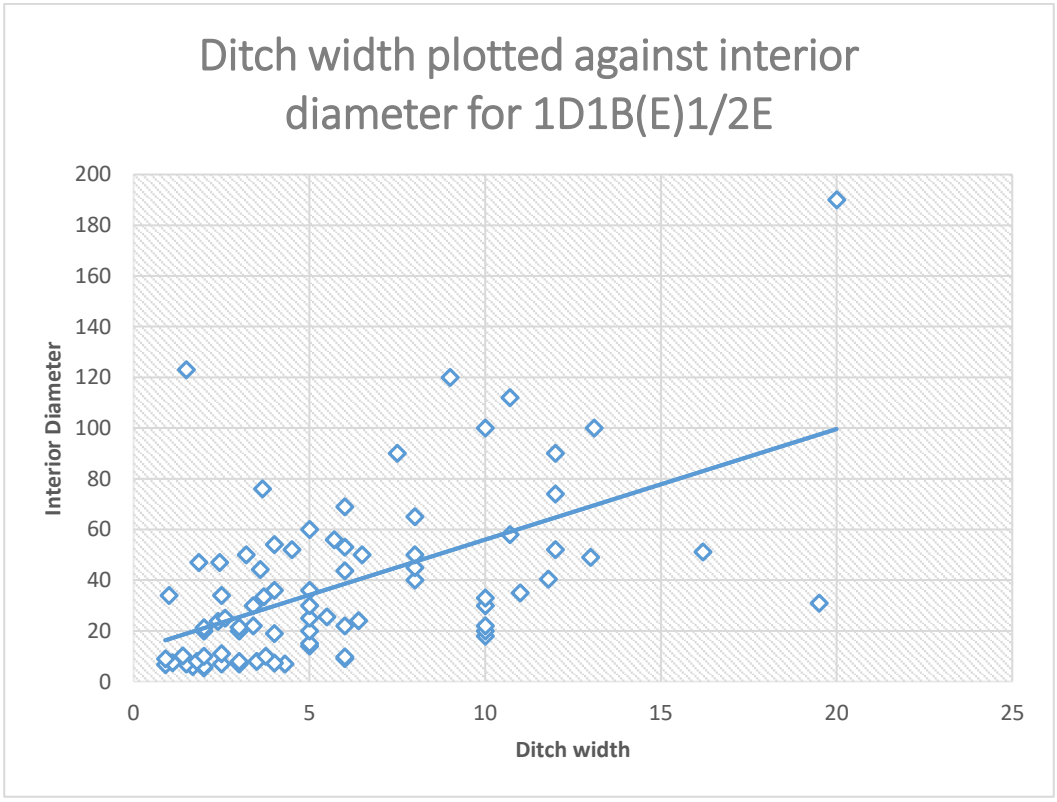


Figure 29: Graph (as above) showing the ditch width against the interior diameter for all included sites with 1 ditch 1 bank (external), and 1 or 2 entrances, for which this information is available (excluding Durrington Walls and Marden)

Although there appears to be a slight pattern in the relationship between ditch width and interior diameter, in that ditches appear to be relatively broad in relation to interior size, there is a spread of measurements with groupings showing a variety of locations and information. Within the form most traditionally considered to be a henge, there is variation above and below the line of best fit (*Figure 29*). The pattern here does not support a clear type; however it does tentatively suggest a general pattern of henge sites having a broad ditch. One group that slows a clear cluster, are the henge enclosures of Wessex, which lie outside the main group in *Figure 27*.

5.4 Features and Use

5.4.1 Introduction

This section looks specifically at features found both within and outside of the earthwork component of henge sites, looking at the relationship between the earthwork form and the presence (or lack of) other features. Under-representation of features is arguably an issue in such a process; placement of trenches, limited excavation, clear identification and later alterations will all have an influence on the features which are noted. Similarly, some sites have been tentatively identified as barrow sites, although a mound has not been identified, therefore some features are under-represented due to lack of evidence and plough damage. Full tables of the number of each feature type in relation to form can be found in *Appendix B*.

5.4.2 Individual features

*Table 11***Error! Reference source not found.** below highlights how common it is to find features at sites deemed to be henge monuments. One clear observation is that all the numbers relating to percentage are consistently low, many under 1%. Considering the number of sites excavated, however, it is clear there are many sites that have not been excavated revealing potential features; similarly, sites rarely see 100% excavation and often a percentage of the interior and a portion of ditch and bank are the focus of trenches. Pits, unsurprisingly, occur most regularly and often repeatedly at individual sites. Pit digging is a typical feature of sites dating to the Neolithic, during which pit-digging and structured deposition was a significant activity (see Chapman 2000; Harding 2006; Anderson-Whymark and Thomas 2012). Similarly, pit clusters and pit alignments are also relatively highly represented.

Barrows also appear 31 times in relation to 27 sites – this highlights the number of sites perhaps reused as barrows, or sites wrongly classified as henges when perhaps the function was always that of a barrow burial site.

Table 11: Outlining the total numbers of features based upon simple feature queries

Feature	Number of features	Number of sites with this feature	% of total number of included sites (358) with this feature (2DP)	Feature	Number of features	Number of sites with this feature	% of total number of included sites (358) with this feature (2DP)
Avenue – embanked	3	3	0.84	Pit circle	43	36	10.06
Avenue – stone	3	2	0.56	Pit cluster	34	29	8.1
Avenue – timber	2	2	0.56	Post trench	6	6	1.68
Bank segment	1	1	0.28	Posthole	32	17	4.75
Buried land surface	8	7	1.96	Posthole alignment	24	17	4.75
Cist	7	6	1.68	Ring bank	5	5	1.40
Cursus	2	2	0.56	Ring ditch	20	15	4.19
Deposit	51	30	8.38	Stakehole	9	8	2.23
Ditch circuit	15	12	3.35	Stakehole alignment	7	6	1.68
Ditch segment	17	16	4.47	Stakehole circle	4	3	0.84
Field system	1	1	0.28	Standing stone	15	13	3.63
Hearth	21	14	3.91	Stone circle	24	18	5.03
Henge	1	1	0.28	Stone cove	2	2	0.56
Hollow – natural	4	4	1.12	Stone recumbent	1	1	0.28
Hollow – treethrow	7	6	1.68	Stone setting	25	18	5.03
Inhumation	2	2	0.56	Structure – house	16	7	1.96
Mound – barrow	31	27	7.54	Structure – platform	2	2	0.56
Mound – cairn	17	15	4.19	Structure – roundhouse	1	1	0.28
Mound Turf	4	4	1.12	Structure – unknown	9	9	2.51
Palisade	3	3	0.84	Timber circle	31	17	4.75
Palisade enclosure	3	3	0.84	Timber setting	9	9	2.51
Passage grave	3	3	0.84	Unknown – cropmark	6	5	1.40
Pit	283	93	25.98	Unknown – Geophysical anomaly	8	6	1.68
Pit alignment	25	22	6.15	Unknown feature	2	2	0.56

Table 12: The percentage of sites having each feature. The percentage of sites (Total/Internal/External) is of all sites included within the analysis (Total = 358). The percentage of excavated sites is taken as a percentage of 163 sites.

Feature	% of sites with this feature (**total**)	% of **excavated** sites with this feature	% of sites with this feature (**internal**)	% of sites with this feature (**external**)	Feature	% of sites with this feature (**total**)	% of **excavated** sites with this feature	% of sites with this feature (**internal**)	% of sites with this feature (**external**)
Avenue –Embanked	0.84	2.21		0.84	Pit circle	10.06	16.56	8.94	1.68
Avenue – Stone	0.56	0.61		0.56	Pit cluster	8.1	14.11	5.87	3.91
Avenue – Timber	0.56	1.23	0.56		Post trench	1.68	3.68	1.40	0.28
Bank segment	0.28		0.28		Posthole	4.75	9.82	3.91	1.40
Buried land surface	1.96	4.29	1.96		Posthole alignment	4.75	10.43	3.63	1.96
Cist	1.68	3.68	1.68		Ring Bank	1.40	3.07	1.40	
Cursus	0.56	0.61	0.28	0.56	Ring Ditch	4.19	7.98	2.51	2.51
Deposit	8.38	17.79	8.10	1.96	Stakehole	2.23	4.29	1.68	0.84
Ditch Circuit	3.35	6.13	1.68	1.96	Stakehole alignment	1.68	3.68	1.40	0.28
Ditch segment	4.47	8.59	2.23	2.23	Stakehole circle	0.84	1.84	0.56	0.28
Field system	0.28			0.28	Standing stone	3.63	4.91	3.07	0.84
Hearth	3.91	8.59	3.63	0.28	Stone circle	5.03	10.43	5.03	
Henge	0.28	0.61	0.28		Stone cove	0.56	1.23	0.56	
Hollow – Natural	1.12	1.84	0.56	0.56	Stone recumbent	0.28	0.61	0.28	
Hollow – Treethrow	1.68	3.68	0.56	1.12	Stone setting	5.03	9.82	5.03	
Inhumation	0.56	1.23	0.56		Structure – house	1.96	3.68	1.12	1.12
Mound – Barrow	7.54	9.20	6.98	1.12	Structure – platform	0.56	1.23	0.56	
Mound – Cairn	4.19	6.75	3.91	0.28	Structure – roundhouse	0.28	0.61	0.28	
Mound – Turf	1.12	2.45	1.12		Structure – Unknown	2.51	4.91	1.68	0.84
Palisade	0.84	1.23	0.56	0.28	Timber circle	4.75	10.43	3.35	1.40
Palisaded Enclosure	0.84	1.84	0.28	0.28	Timber setting	2.51	5.52	2.51	
Passage Grave	0.84	1.23	0.56	0.28	Unknown – cropmark	1.40	1.23	1.12	0.28
Pit	25.98	53.37	22.08	8.38	Unknown – geophysical Anomaly	1.68	1.23	1.68	0.28
Pit Alignment	6.15	9.20	3.91	2.79	Unknown feature	0.56	0.61	0.56	0.28

Table 12 above shows the percentage of sites with each feature, alongside the percentage of sites where the feature is placed within the interior or external of the henge site.[11] In regard to pit digging (highlighted in yellow), the percentages are again shown to be high with over 53% of excavated sites including pits. Also, approximately 10% of excavated sites had barrows, timber circles, stone circles or settings. Such a number does not support the notion that henges and stone circles are directly linked and regularly found in conjunction with each other, however, it does suggest that a significant percentage of henge sites are associated with barrows and stone circles.

Timber circles and pit circles are two feature/site types that are often hard to distinguish from each other due to both feature types leaving similar archaeological remains. Direct evidence of posts (such as ramps, packing fills, or decaying wood) is often missing and so what might appear to be a pit circle could have rather been postholes, but it is difficult to support a definite interpretation. The table below (

Table 13**Error! Reference source not found.**) compares known timber circle measurements to those from features described as pit circles to investigate whether there are any clear differences between the two. It is clear, however, that there are no clear patterns in the diameters of the circle or the pits themselves, with the range being quite large (c.7-50m diameter for timber circles, and c.2-92m diameter for pit circles). The majority of timber circles are placed concentric to the surrounding earthwork, with a diameter that neatly sits close to that of the earthwork itself, however the timber circle at Forteviot Henge 1 differs, in that it encircles the exterior of the earthwork (see

Table 13 below). At the large Wessex henge enclosures Mount Pleasant and Durrington Walls, the timber circles do not increase in size in proportion with the earthwork – instead they are similar in size to the larger circuits of Woodhenge (c.40m). These sites also do not occupy a central position within the large enclosure earthwork – suggesting that as the size increased, the idea of a central position became less significant. A similar pattern is evident

[11] The percentage of sites (total/internal/external) are of all sites included within the analysis (total = 358). The percentage of excavated sites is taken as a percentage of 163.

for pit circles – those that are concentric to the earthwork generally have a large diameter in proportion to the interior diameter.

Table 13: Pit and timber circles compared (features with measurements provided only)

Pit circles							Timber circles						
Site name	Excavated	Circle diameter (m)	Earthwork Diameter	Pit diameter (m)	Pit depth (m)	Location	Site name	Excavated?	Circle diameter (m)	Earthwork diameter (m)	Pit diameter (m)	Pit depth (m)	Location
Bury Farm 1	✓	c.17	c.20	0.6	0.64	Concentric	Broomend of crichie	✓	9.5	20		0.13 – 0.65	External South
Moncreiffe	✓	c.7	10	0.5	0.42	Concentric	Balfarg	✓	25	65	1		Multiple, Concentric
Easter Cadder		3	10			Concentric	Meusydd	✓	7.4	20 (ext)			Concentric
Llandegai A	✓	9	50			External entrance			10.5				
Dorchester I	✓	10	c.17	0.76 - 4.6	0.36 - 0.84	concentric	Arminghall	✓		27		2.2	Concentric
Dorchester XI	✓	10	15		0.23 – 0.76	Concentric	Welshpool	✓	17.5	17	1.115 - 2	1.2	Centre
Stanton Drew Great Circle		19 -92	113		1	Multi-circuit					1.4 – 1.9	1.3	
Maumbury Rings	✓	52	56	0.61 – 3.7	10.4 - 11	Concentric	Ferrybridge	✓	15.5	100	0.2 – 0.5	0.5	External SE
Dowth		85	175			Internal SE			15.5		0.4 – 0.6	0.2 – 0.5	
Milfield N.	✓	7	15	0.2 – 0.6	0.13 – 0.4	Concentric	Ferrybridge Hengiform 155	✓	13.5	16	0.25 - 1	0.04 – 0.2	Concentric
		50				External, Concentric	Durrington Walls	✓	40	440			Internal E Multi circuit
Stonald Field	✓	24.8	30	0.7 – 1.6	0.3 – 0.7	Concentric	Forteviot Henge 1	✓	45	22	0.5+		External, Concentric
Cairnpapple	✓		44	0.7 – 0.9	0.2 – 0.9	Concentric	Marden	✓	10.5	530	0.19	0.15	Internal North
Ringlemere	✓	25 - 30	43			Concentric	North Mains I	✓	25 - 27	35		1.3 – 2.05	Concentric
Coneybury Henge	✓		36	0.34 – 1.35	0.2 - 1	Centre	Woodhenge	✓	44	c.50		0.6	Concentric
North Mains I	✓	18.5 – 22.5	35			Internal SW			38.1			1.17	
Threshfield 1		12 - 15	40			Off centre			29.4			1.24	
Dorchester Bypass B	✓		15 (ext)	0.85	0.15	Concentric			22.56			0.86	
Stonehenge	✓	87	96	1	0.9	Concentric ring			17.4			0.76	
Etton Landscape site 2	✓	15.5	22			concentric	Mount Pleasant	✓	12 - 38	c.300			Multi circuit
							Paddock Hill	✓	17	52			Concentric
							Avebury	✓	30 - 50	380			Multi circuit
							Catholme 203	✓	20-42				Multi circuit, no earthwork

However, the sample size is small and, therefore, is not an exhaustive list of all known sites, but rather a sample of sites for which measurements were available.

5.4.3 Pits, pit-digging and human remains

Pits are the most prominent feature found, and a number were found to contain human remains. *Table 14* below highlights the number of pits containing human bone, including the number found internally or externally to the earthwork, and then in relation to the form which the henge site takes. Unsurprisingly, the forms with the highest number of pits containing human remains are those that take on the form of typical class I and II henges which are the largest group of sites within the dataset; this highlights the nature of one use of henge sites but does not consider the chronology.

As can be seen in

Table 15 below, a large proportion of sites (56.99%) produced pits containing human remains, of which ten pits were listed as being cut into the ditch.[12] Human bone was also listed as a find in a number of sites including Lord of the Manor sites 1 & 3, Marden, Wilsford (human bone); Coneybury, Wellow Lane (human bone-burnt); and, Ferrybridge (human bone-cremated). Other sites which had human remains described as evident in the fill of the ditch included: Whitton Hill 1, Whitton Hill 2, Condicote and Ferrybridge hengiform 162.[13] The low number of sites with human remains within the ditch fill could be due to a variety of reasons, including the quality and period of excavation, destruction of ditch fills from recuts or plough damage, and for the focus on the internal area in investigation.

[12] Priors Hill, Dorchester II (two instances), Wilsford, Dorchester VI (two instances), Mount Pleasant (two instances), Etton Landscape site 7, Stonehenge.

[13] A search for descriptive terms in the fields of the 'Ditch' table' (words searched were: *bone*,*human*.*remains*, *burial*, *cremated. In both 'fill' and 'deposit' fields – sites not listed if return said 'animal bone'). Both Whitton Hill and Condicote returned with a search for 'bone'; whilst Ferrybridge hengiform 162 returned under a search for 'cremated'.

Table 14: The number of sites of each form query which had features with human remains present

Pits with human remains evident - Feature type 'pit'/ Human remains YES	Number of pits	Number of sites
Total	128	53
total internal	110	49
total external	18	9
INTERNAL FEATURES		
Included*/NULL Bank/NULL Ditch	1	1
Included*/NULL Bank/1 Ditch	7	1
Included*/*1 Bank/NULL Ditch	8	1
Included*/*1 Bank/*1 Ditch	1	1
Included*/*3 Bank/*3 Ditch	5	1
Included*/NULL Bank/*1 Ditch/*1 Entrance	25	7
Included*/*1 Bank/*1 Ditch/*1 Entrance	23	17
Included*/*1 Bank/*2 Ditch/*1 Entrance	1	1
Included*/NULL Bank/*1 Ditch/*2 Entrance	1	1
Included*/*1 Bank/*1 Ditch/*2 Entrance	31	14
Included*/*2 Bank/*1 Ditch/*2 Entrance	4	2
Included*/*1 Bank/*1 Ditch/*3 Entrance		
Included*/NULL Bank/*1 Ditch/*4 Entrance	1	1
Included*/*1 Bank/*1 Ditch/*4 Entrance	2	1
EXTERNAL FEATURES		
Included*/NULL Bank/NULL Ditch		
Included*/NULL Bank/*1 Ditch	1	1
Included*/*1 Bank/NULL Ditch		
Included*/*1 Bank/*1 Ditch		
Included*/*3 Bank/*3 Ditch		
Included*/NULL Bank/*1 Ditch/*1 Entrance	8	1
Included*/*1 Bank/*1 Ditch/*1 Entrance	3	3
Included*/*1 Bank/*2 Ditch/*1 Entrance		
Included*/NULL Bank/*1 Ditch/*2 Entrance		
Included*/*1 Bank/*1 Ditch/*2 Entrance	5	3
Included*/*2 Bank/*1 Ditch/*2 Entrance		
Included*/*1 Bank/*1 Ditch/*3 Entrance	1	1
Included*/NULL Bank/*1 Ditch/*4 Entrance		
Included*/*1 Bank/*1 Ditch/*4 Entrance		

Table 15: The number of sites with pit features containing human remains

Total Numbers for pits and pit features where human bone remains were present or recorded			
Total pits	283	Total number of sites with pits	93
Pits with human remains	128	sites with pits with human remains	53
Percentage of pits with human remains	45.20%	Percentage of sites with pits with human remains	56.99%
Total pit alignments	25	Total number of sites with pit alignment	22
Pit alignments with human remains	1	sites with pit alignments with human remains	1
Percentage of pit alignment with human remains	4%	Percentage of sites with pit alignments with human remains	4.54%
Total pit circles	43	Total number of sites with pit circles	36
Pit circles with human remains	7	sites with pit circles with human remains	6
Percentage of pit circles with human remains	16.28%	Percentage of sites with pit circles with human remains	16.67%
Total pit clusters	34	Total number of sites with pit clusters	29
Pit clusters with human remains	8	sites with pit clusters with human remains	8
Percentage of pit clusters with human remains	23.53%	Percentage of sites with pit clusters with human remains	27.59%

The table below (*Table 16*) shows a low number of human remains associated with barrow mounds – this appears as an anomaly as it would be expected to be much higher, but a number of barrow mounds are unexcavated or have been reduced by ploughing, furthermore, specific burials tend to be referred to as features in their own right (e.g. cist, pit). The two instances that the mound-barrow features here (*Table 16*) are associated with human remains are instances of scattered human bone within the mound material. A number of these instances were also associated with features inserted or cutting the ditch of the site including: Gorsey Bigbury (cist), Devils Quoits (hearth), Avebury (deposit), Dorchester V (deposit) and Dorchester VI (deposits on three occasions). *Table 16* also highlights the low percentages of features such as timber circles and stone settings which are associated with human remains, again suggesting that such features were not directly related to a funerary purpose.

Table 16: The number of other (non-pit) features associated with human remains

Total Numbers for other features (non-pit features) where human bone remains were present or recorded			
Total 'Avenue-stone'	3	Total 'Mound - cairn'	17
Total 'Avenue-stone' with human remains	1	Total 'Mound - cairn' with human remains	4
Percentage of 'Avenue-Stone with human remains	33.33%	Percentage of 'Mound - cairn' with human remains	23.53%
Total 'Cist'	7	Total 'Ring ditch'	20
Total 'Cist' with human remains	4	Total 'Ring ditch' with human remains	2
Percentage of cists with human remains	57.14%	Percentage of 'Ring ditch' with human remains	10%
Total 'Deposit'	51	Total 'Stone circle'	24
Total 'Deposit' entries with human remains	20	Total 'stone circle' with human remains	1
Percentage of pit circles with human remains	39.22%	Percentage of 'Stone circle' with human remains	4.17%
Total 'hearth'	21	Total 'stone setting'	25
Total 'hearth' with human remains	1	Total 'stone setting' with human remains	1
Percentage of hearths with human remains	4.76%	Percentage of 'stone setting' with human remains	4%
Total 'inhumation'	2	Total 'timber circle'	31
Total 'inhumation' with human remains	2	Total 'timber circle' with human remains	2
Percentage of 'inhumation' with human remains	100%	Percentage of 'timber circle' with human remains	6.45%
Total 'Mound – barrow'	31		
Total 'Mound - barrow' with human remains	2		
Percentage of 'Mound - barrow' with human remains	6.45%		

5.4.4 Multiple features

The previous sections have considered features individually, but it is possible to search for repeated relationships between types of features. *Figure 30* maps the relationships between different kinds of internal features (those relating to the interior enclosed space or the

earthwork itself).[14] The web shows a complicated picture with many connections; however, the dominance of the pit relationships is clear. Links between pit features (pits, alignments, circles and clusters) are the source of the strongest links to a wide variety of other features, with the links between pit-stone circle and pit-deposit occurring most often. Strong connections are also visible between deposits and stone circles. Most of the lines represent only one or two instances of a connection, highlighting the variation in evidence available and potentially diverging use of these earthwork sites (from construction through to later use). The wide variation of connections and the majority of weak connections, would tend to suggest that sites had divergent uses and, therefore, biographies. Focusing on external features is more challenging due to the limitations that affect the recording of these features. As *Figure 31* shows, there are less visible relationships between feature types, and lower numbers of sites displaying those relationships[15]. It does, however, highlight the presence of pits and posthole features outside of the earthwork. Investigating external features is a difficult task, with limitations ranging from a lack of excavation of the sites (as outlined above), to the focus on the earthwork and interior to the detriment of the archaeology that lies externally. Fixing this, however, is also difficult as placing an arbitrary boundary on an area around the earthwork around which to determine the extent of related features would exclude features and sites in the surrounding locale that may have been related or contemporary but fall outside planned trench or investigation boundaries. The relationships mapped in *Figure 31* all stem from excavation reports which refer to such features lying outside of the earthwork.

[14] The web looks at how often each feature is found at the same site and does not reflect the number of features present. Of the sites analysed, 110 returned as having multiple internal features. Some, however, had only the same feature type occurring multiple times – these include Dorchester II (52), Etton Landscape site 7 (578), Fargo (65), Lairg (470), Priors Hall (522) and Weston (153).

[15] *Figure 31* maps relationships of external features of sites, this proved much more difficult due to the lack of information available from excavation reports. 39 sites returned from a multiple feature query, of which 9 had single feature types occurring multiple times: Avebury (7), Catfoss (197), Ferrybridge (316), Ffynnon Newydd (67), Llandegai A (92), Meusydd (404), Pullyhour (338), Threshfield 2 (501), Whitton Hill II (305).

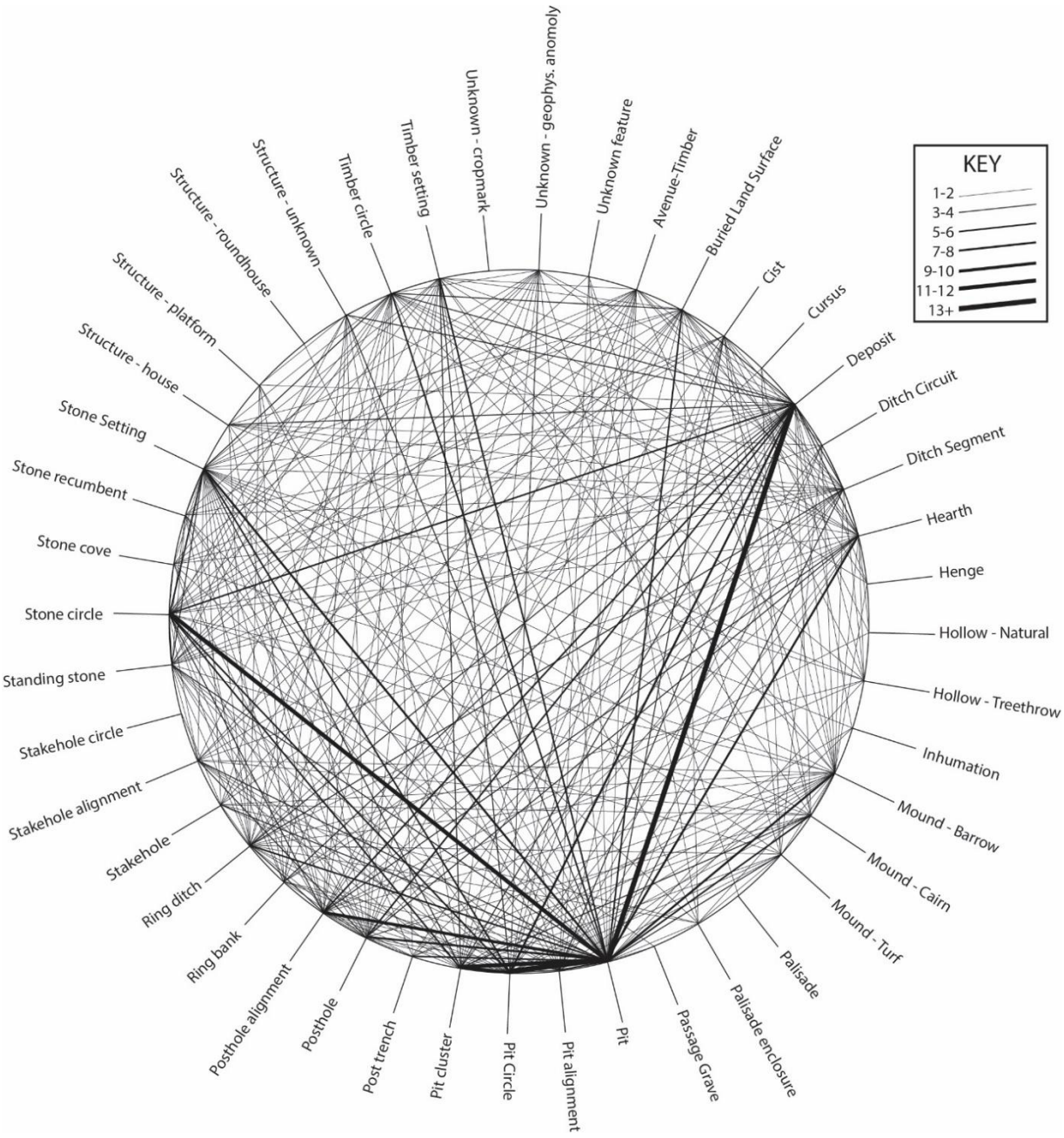


Figure 30: Relational web displaying the relationships between internal features and at how many sites these links occur

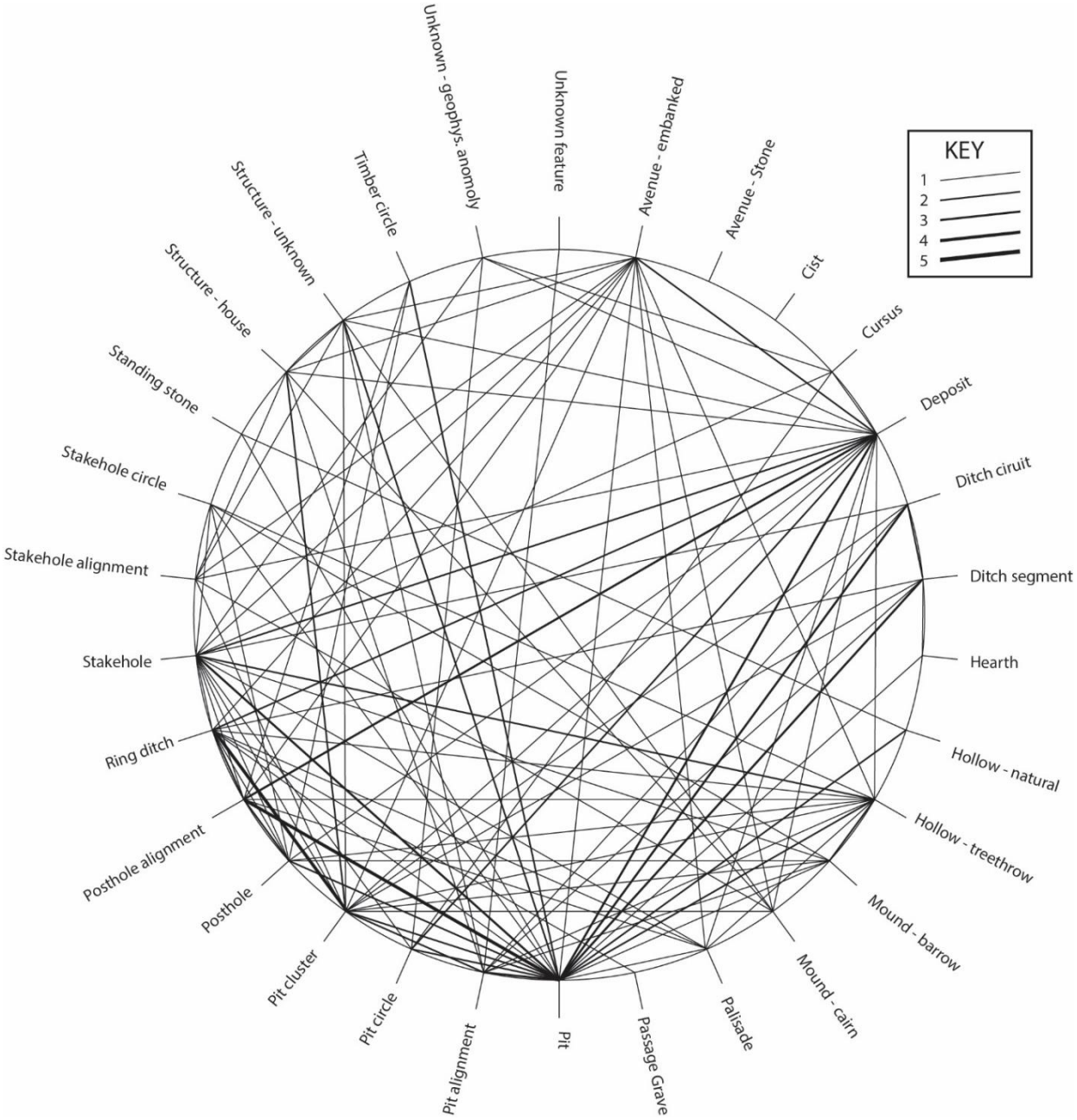


Figure 31: Relational web displaying the relationships between external features and at how many sites these links occur

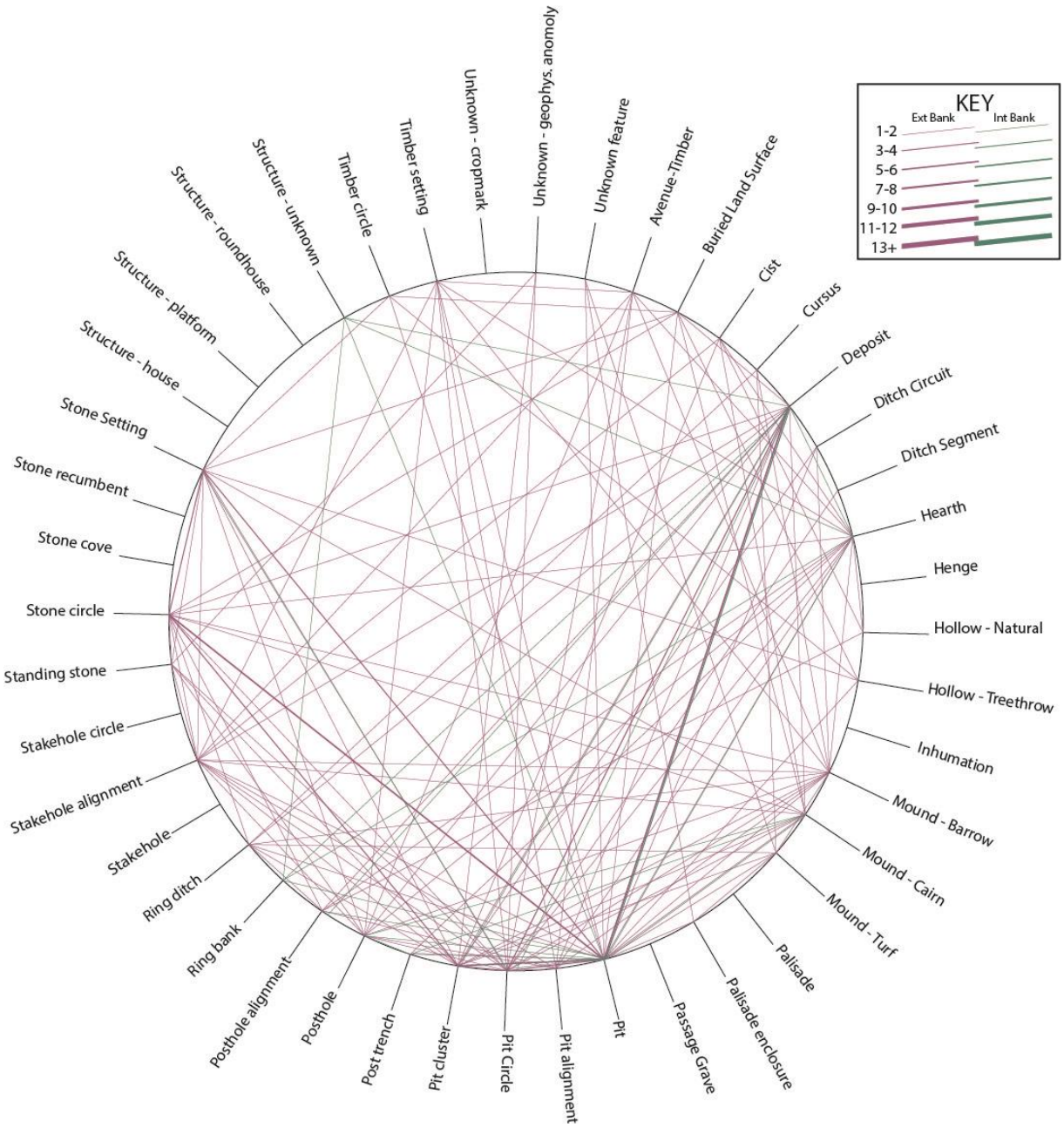


Figure 32: Relational web showing number of relationships between features for 1D1B1E sites (both internal and external banks shown here).

Going one step further and relating these connections to the form of the surrounding earthwork, reveals the most frequent form type is that of '1 Ditch 1 Bank 1 Entrance' and remapping the internal connections at these sites results in *Figure 32* above. This web highlights a similar complex pattern to *Figure 30* with a concentration of relationships with pit-features, post- and stake-hole features, stone circles and deposits.

Of the remaining sites, the next most frequent form for sites with multiple features is 1D1B2E, yet the connections for these sites also show wide variation. The common connection between these sites is the presence of pits, which is repeated throughout each of the form types represented. Sequences of use will be discussed further in Chapter 6, for sites with available dating evidence. This method for analysis suggests that sites had divergent biographies regardless of form similarities, and a tendency towards pit features being the most common.

5.5 Landscape location and site placement

5.5.1 GIS Analysis

Numerous previous publications have commented on the placement of sites by their reference to specific locations within the landscape or proximity to particular features of that landscape, for example in relation to rivers, or viewpoints. GIS was used to analyse the topographic location of sites, using information available from Ordnance Survey and other sources (see *Appendix E* for list of GIS data sources). Using height, slope and river locations, functions within ArcGIS, we can calculate, map and plot information to aid with interpretation of such landscape patterns.

Figure 33 shows all analysed sites within the database on top of a topographic map of the British Isles. The distribution shows a clear concentration in the areas of lower ground, largely avoiding the highlands of Scotland, and uplands of Wales and northern England (visible in brown).

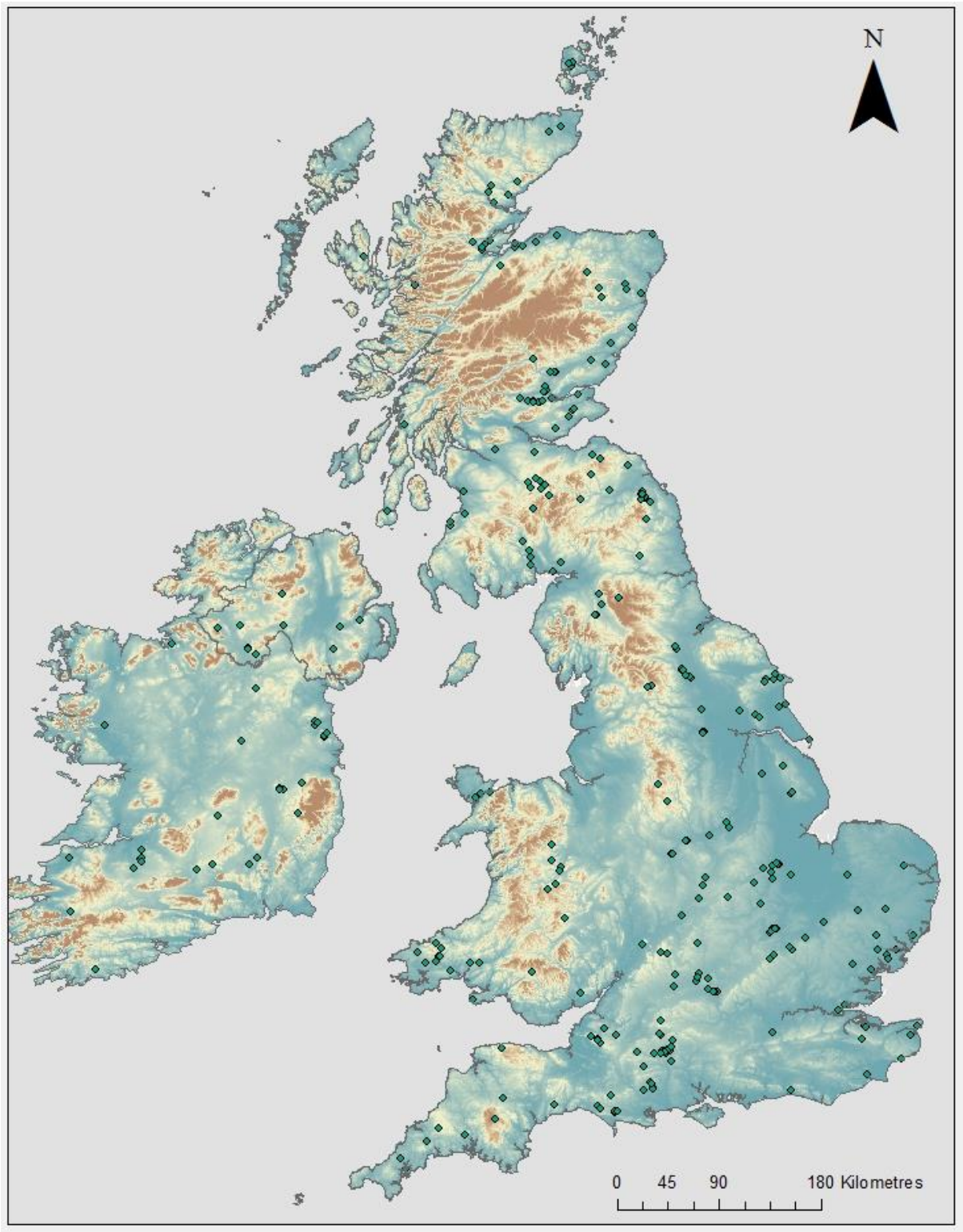


Figure 33: Map showing all included sites over a topographic map of the British Isles

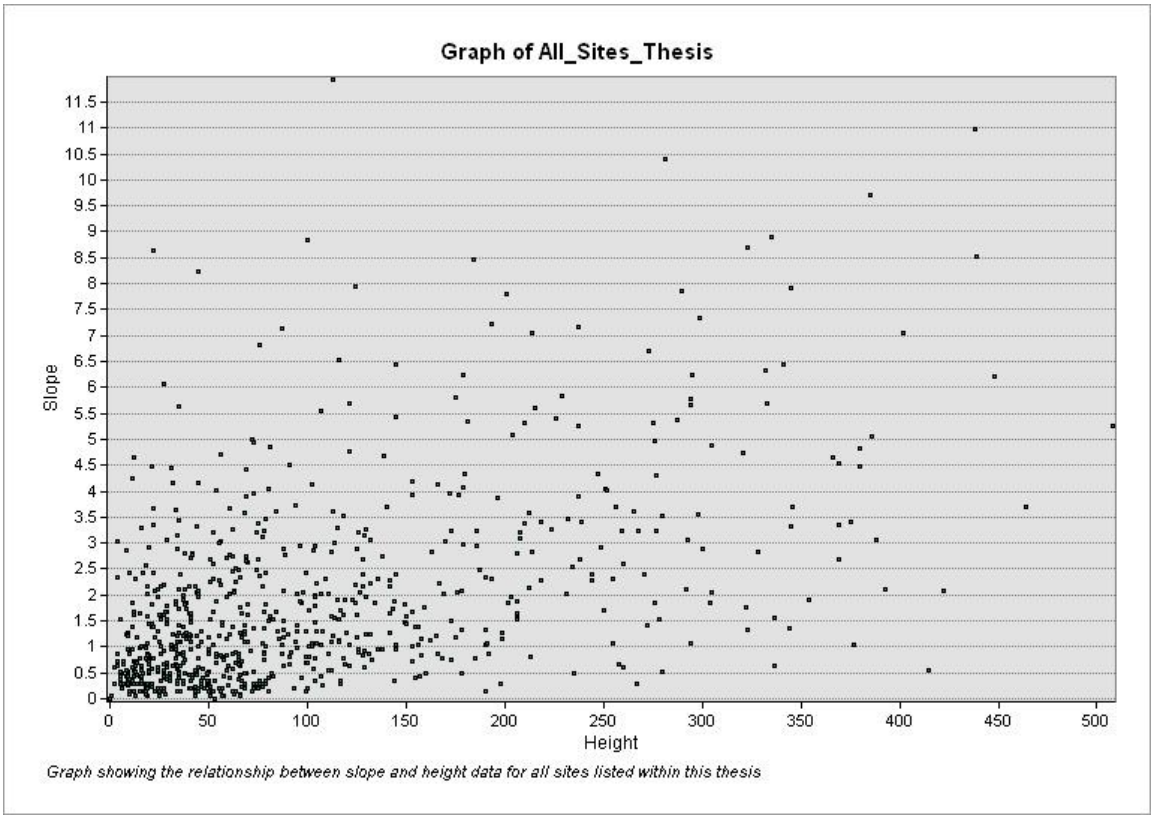


Figure 34: Scatter plot showing the relationship between elevation and slope value for all sites listed within this thesis

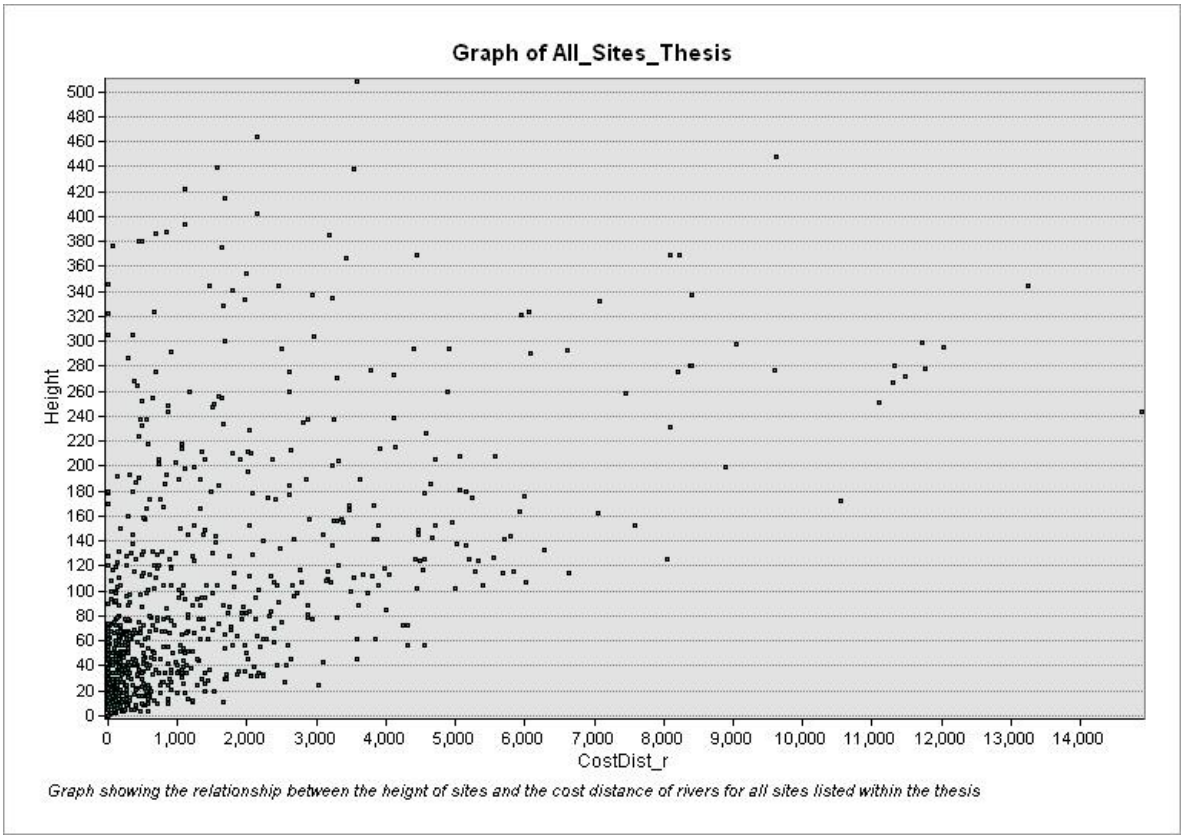


Figure 35: Scatter graph showing the relationship between height and cost distance from river values for all sites listed within the thesis

The scatter graphs above (*Figure 34* & *Figure 35*) show height data displayed against the slope angle and cost distance from the nearest main water source in the form of river for all sites held within the database.[16] Elevation, slope and cost distance were extracted and calculated using functions within ArcGIS – elevation was extracted for each of the site points from a background topographic map of the British Isles and is measured in metres; slope is measured in degrees by default, with 0 degrees corresponding to a flat surface through to a 90-degree vertical surface. Cost distance is a function of slope and distance and is calculated by GIS using a complex algorithm and is measured in cost units. The two graphs show a wide scatter, with some concentration within the lower values.

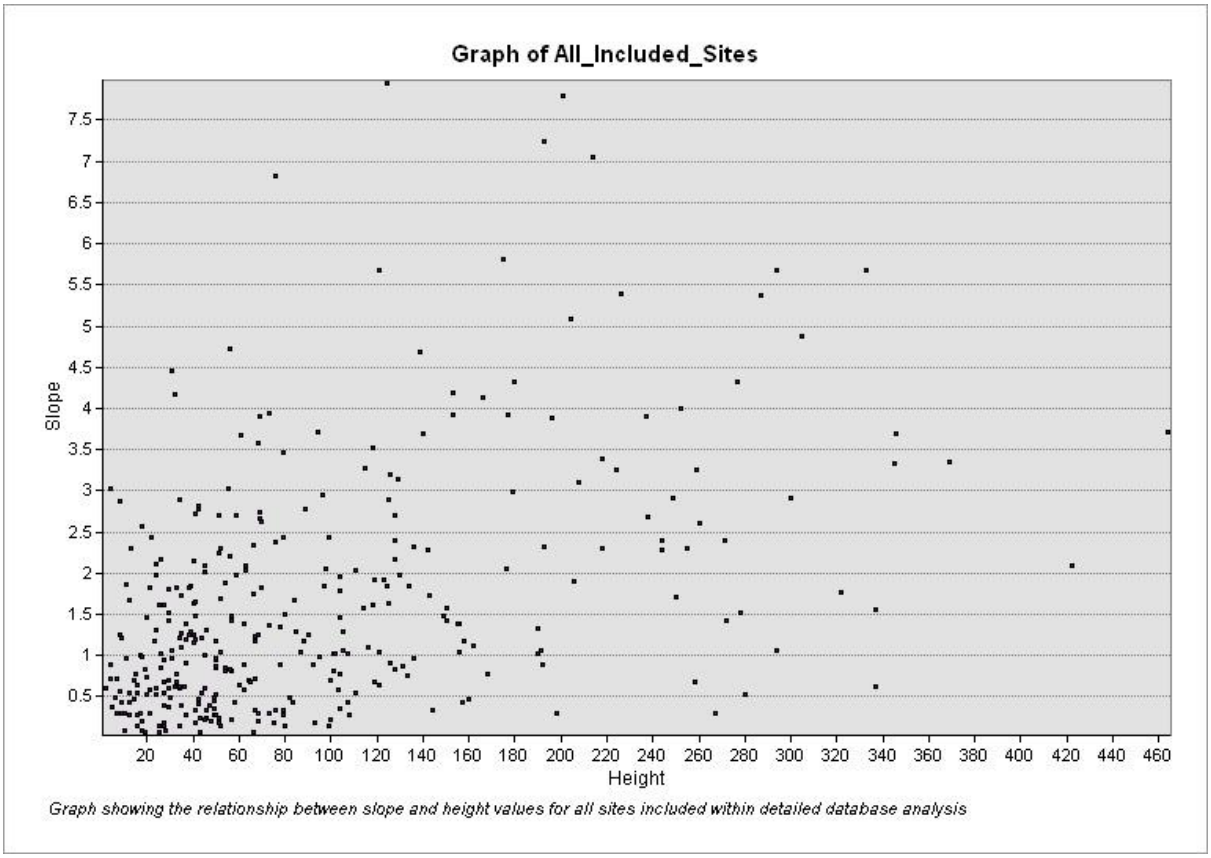


Figure 36: Scatter graph showing the relationship between height and slope data for "All_Included_Sites"

Figure 36 displays the height value of included sites against the slope value generated from a topographic map. A similar pattern is displayed as in *Figure 34* above, however, the concentration does not appear to be as strong.

[16] Cost distance analysis is the analysis of movement over continuous space. The cost varies dependent on the location.

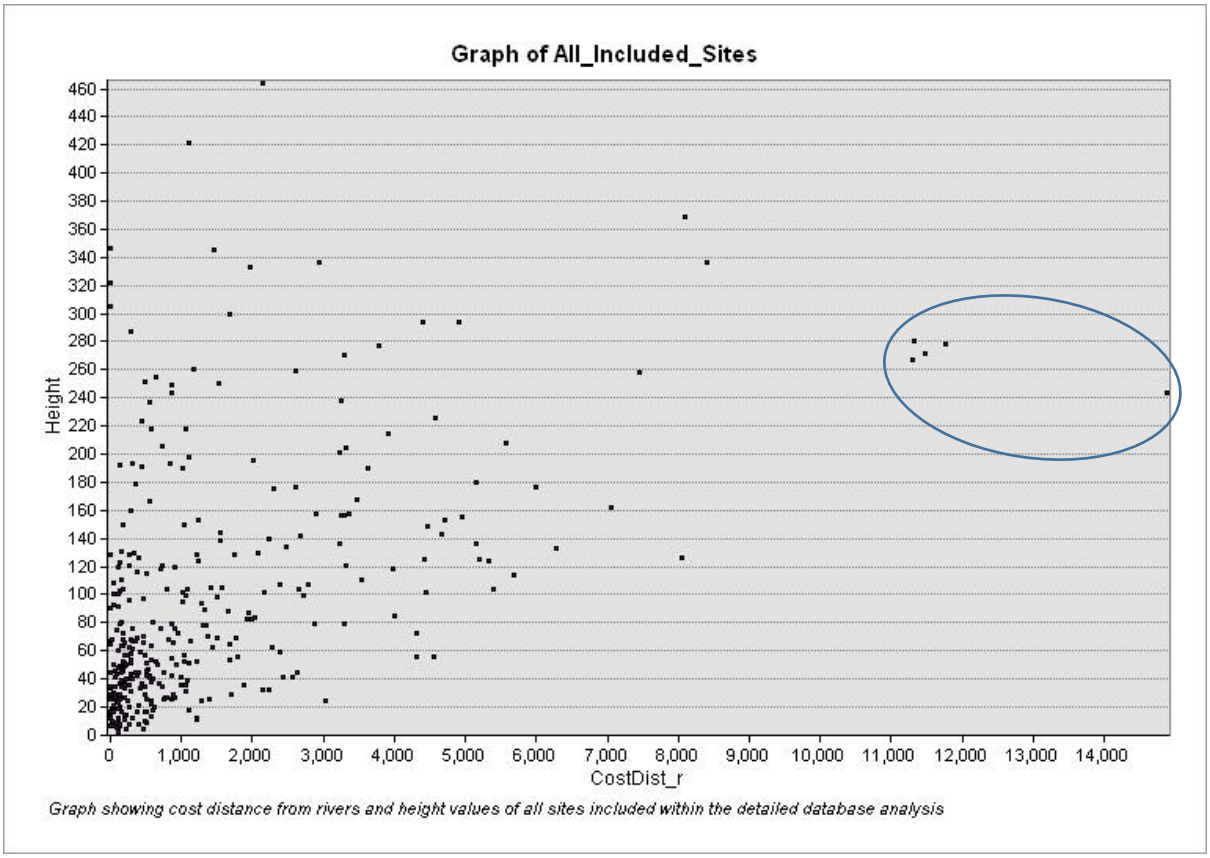


Figure 37: Scatter graph showing the height and cost distance data for "All_Included_Sites"

The graph (*Figure 37*) above shows a scatter plot for height against cost distance from the nearest river for all sites which were included within further analysis. A clear concentration of sites is visible in the bottom left corner - showing the relative relationship between a low height value and low cost-distance value. This suggests a (perhaps expected) link between sites and rivers/water sources, and lower height landscape areas. The sites within the blue oval are Gorsey Bigbury and the Priddy Circles, which are discussed in *Chapter 7*. As the original and most influential definition of a henge monument, sites that fell within the one ditch, one bank, and one or two entrances (class I and class II) were also mapped as a scatter graph to mechanically analyse location in relation to rivers and topography. The graphs below (*Figure 38* & *Figure 39*) show very similar scatters to the graphs above: this highlights that reducing the number down still shows the same varied pattern. There is no clear pattern visible by viewing sites which conform to the original description of the henge type. Whilst it is unwise to attempt to draw conclusions on correlations between henge types and landscape location from this mode of analysis alone, there is a general suggestion that the majority of sites discussed here lie within a low cost-distance range from a river.

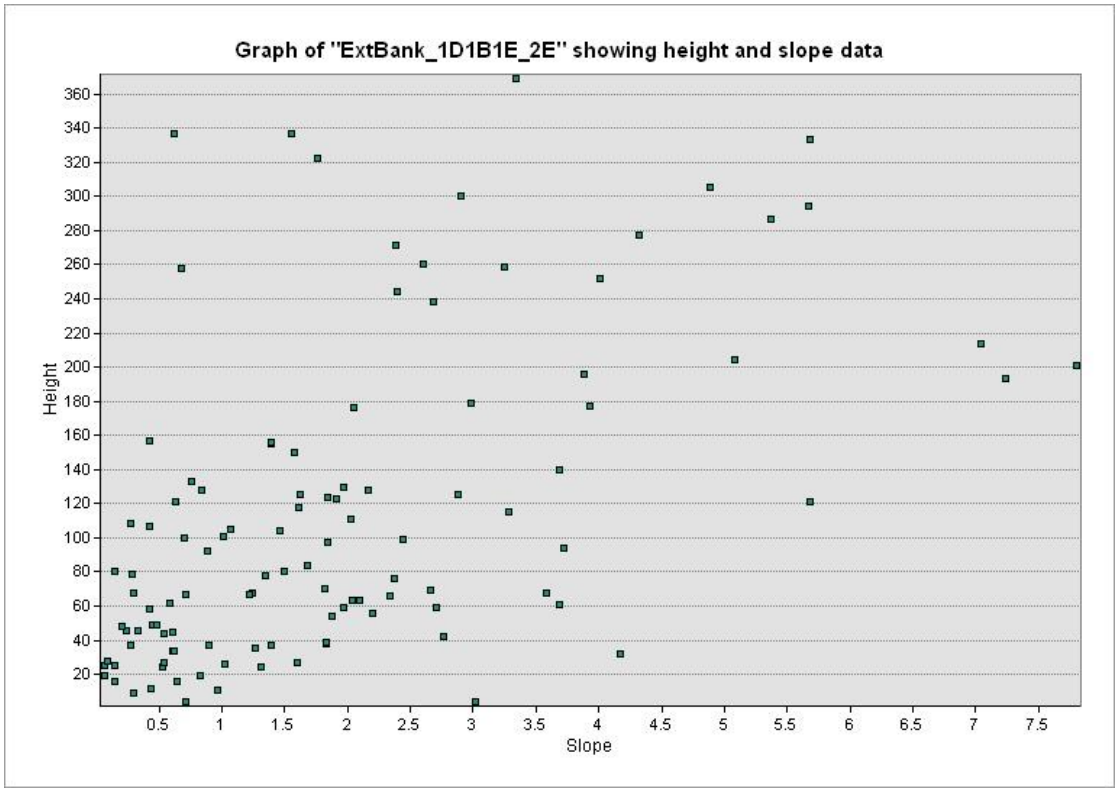


Figure 38: Scatter plot showing the relationship between height and slope data for sites included in analysis with a form of a 'typical' henge form of 1 external bank, 1 ditch and 1 or 2 entrances

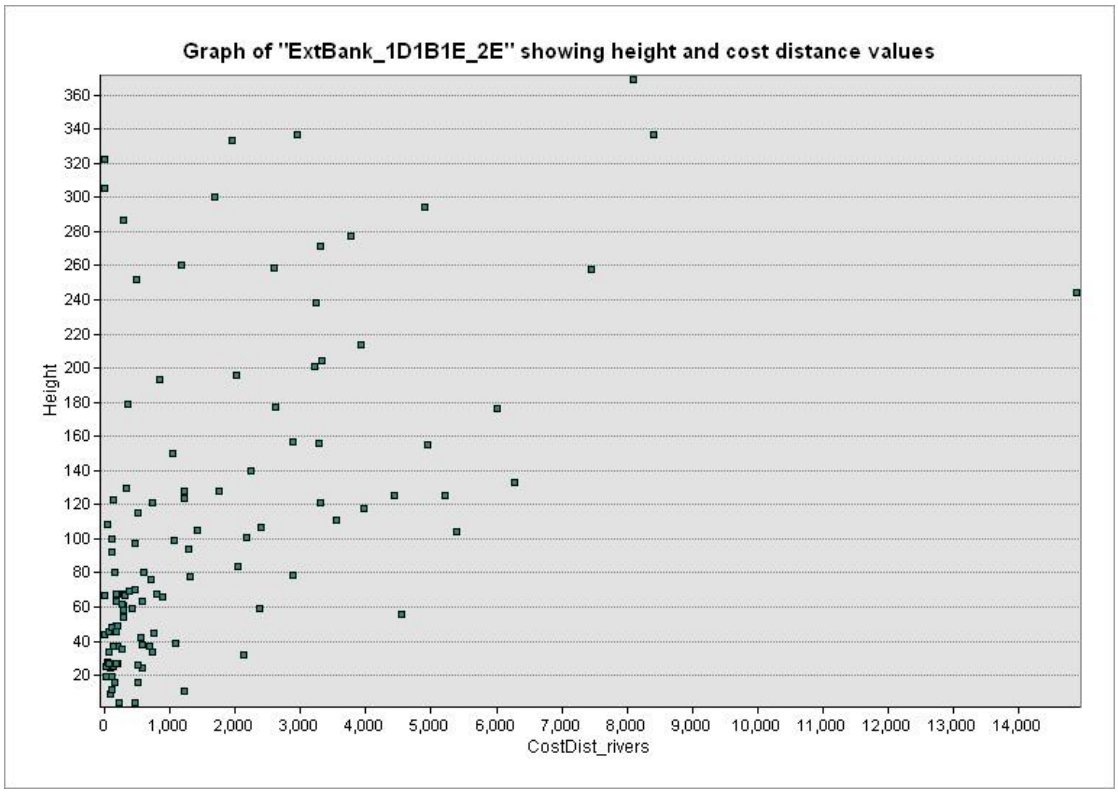


Figure 39: Scatter plot showing the relationship between height and cost distance data for sites included in analysis with a form of a 'typical' henge form of 1 external bank, 1 ditch and 1 or 2 entrances.

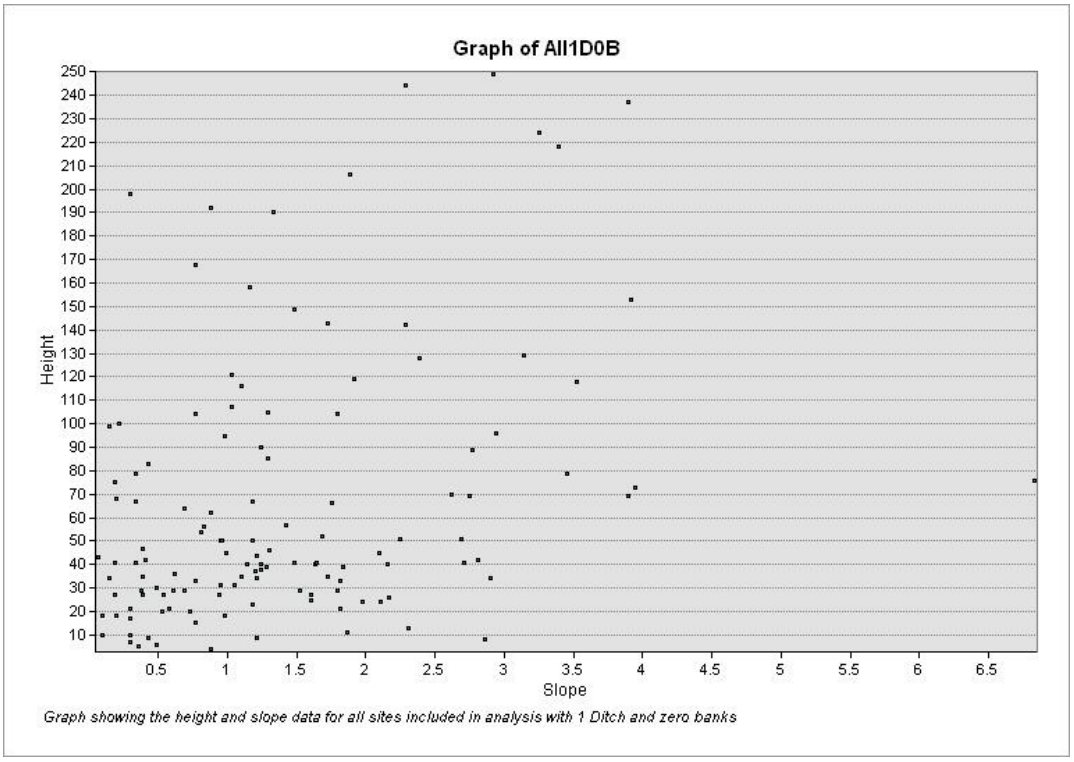


Figure 40: Scatter plot showing the relationship between height and slope data for sites included in analysis with the form of 1 ditch

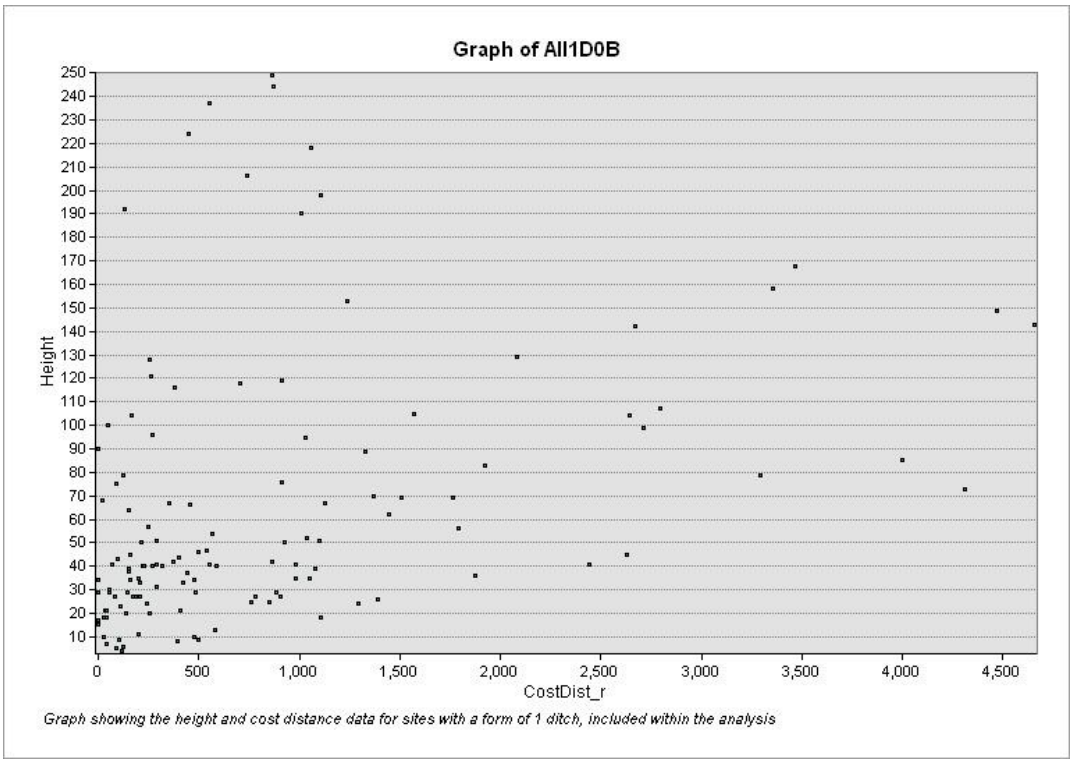


Figure 41: Scatter plot showing the relationship between height and cost distance data for sites included in analysis with a form of 1 ditch

Similarly, separating sites that have a single ditch but perhaps lack the evidence to suggest a bank, or are currently a cropmark site, displays a similar scatter to the earlier graphs. *Figure 40* and *Figure 41* show similar scatter to the total number of sites and to those that fall within the typical henge form. *Figure 41*, displaying cost distance, appears to show two directions of scatters which roughly follow the x and y axis. It is likely that sites which are listed as one ditch sites have the potential to be a range of different site types due to the lack of excess information visible from a cropmark or to excavators (barrow, enclosure, field boundary etc.).

The Figures above have shown a general pattern suggestive of a correlation between sites within this catalogue and a landscape location with a lower land height and slope level. GIS cost-distance has also suggested that there is a link visible between the majority of sites within the dataset and a lower cost-distance between site and nearby river. These arguments are limited by the data within the catalogue and takes into account main rivers as mapped within the Ordnance Survey database (see *Appendix E* for shapefile origin), springs, ancient streams and river courses are, therefore, not included within this mode of analysis and might, with inclusion, further support the correlation.

5.5.2 Henges and Water

The concentration of sites clustered towards the axis of the cost-distance graphs above suggests many sites were close to or within a region of rivers or other major water sources. The placement of henge sites is something that has been commented on by Colin Richards (1996), amongst others; arguing that there is significance in wet locations and the liminal quality of water and wet ground. Using Orkney, the Milfield basin and the Thornborough monument complex, Richards (1996) highlights the relationship between these sites and water, both in their placement close to water sources and their alignment adjacent to the course of the water. The scatter graphs above, generated using ArcGIS, also support this generalised notion, however information taken from publications is also recorded within the database. Using the information within the database, it is possible to locate references to water sources or waterlogging within the text.

A query of the landscape data suggests that 183 sites were described as close to water, whilst a text search within the ditch description also revealed a number of ditches were

thought to have held water.[17] Eight sites ditches were described as having held water in the past, whilst another two were described as waterlogged during excavation.[18] Pullyhour was described as being likely to have held water in all but the driest conditions, whilst Thornborough Centre and Forteviot Henge 1 exhibited evidence of waterlogging and water infiltration in the fills within the ditch circuits. The association between henges and watercourses is discussed further in *Chapter 7*.

5.5.3 Alignments and monument complexes

Following on from the discussion of waterlogged ditches, of the 183 sites described as close to water, some specifically described the position of the earthwork with direct citation of a water course. Whilst Thornborough and Milfield sites appear aligned *along* the course of a nearby river as discussed by Richards (1996), other sites appear to have entrances aligned *towards* rivers including Durrington Walls, Wilsford and Marden which have an alignment towards the River Avon (or its source). The axis of Maumbury Rings also points towards the River Frome. In Yorkshire, the site at Norton has an axis aligned towards nearby springs and Ferrybridge has an axis which slopes in the direction of the River Aire, whilst the two sites at Threshfield appear to face along the river valley.

Some sites appear to reference other aspects of the landscape: Hill of Tuack entrance frames an adjacent hill, Yeavering is aligned on prominent hills and Yarnbury faces Simon's Seat. Other sites appear to frame views, such as Coupland which frames wider views of the landscape. Other sites appear to share alignments with nearby monuments, such as the Scottish site of Broomend of Crichie which overlies an avenue and has an axis that respects its course. The axis of Pullyhour links it with Leosag cairn on the opposing side of the river, and similarly a barrow lies in alignment with the entrance to North Mains I. The Stonehenge landscape is arranged in reference to periglacial fissures which were later monumentalised within the Stonehenge avenue (Allen *et al.* 2016).

[17] 183 returned as 'close to water' out of a query of all included sites. This data was collected via descriptions of the surrounding landscape from publications or relevant maps. Text searches were done for '*water*' and '*wet*' as well as '*Spring*' – resulting in 12 returns, of which 'Waterhill Fort' and 'Westwell' were referring to the presence of a modern drainage-pipe.

[18] Ring of Brodgar was described as waterlogged during excavation, alongside Stripple Stones which was described as having a waterlogged ditch, but which could be related to recent peat build up.

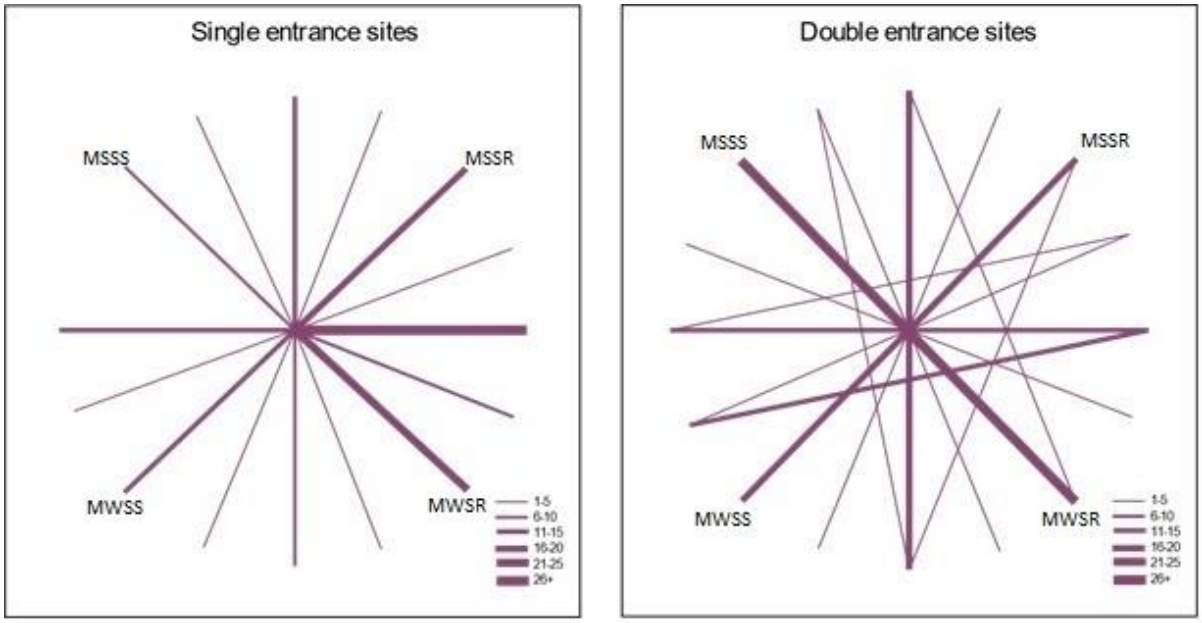


Figure 42: Illustration showing the compass directions which entrances face of single and double entrance sites

The relationship between solar alignments and the entrances of prehistoric sites is one that has been discussed by a number of authors (see Burrow 2010b; MacKie 1997; Allen et al. 2016 etc.). Henges have also become synonymous with solar and lunar alignments through the fascination with Stonehenge (see *Section 2.5.2*). Yarnbury is aligned South-East in line with the midwinter sunrise; similarly, Lochend/Loch Migdale share the same alignment, and Norton Henge has an entrance in the east which is also in line with equinox sunrises. *Figure 42* above shows illustrations of the alignments for all included sites with one or two entrances; key sunrise/sunset directions are marked on the illustration. For single entrance sites the figure above shows a preference for entrances towards the east (45%: north-east = 11%, east = 20%, and south-east= 14%), this is in the general direction of the midwinter and midsummer sunrise. For the double entrance sites, the entrances tend to be associated with the midwinter sunrise and midsummer sun set (SE-NW = 30%).

5.5.4 Regionality

This chapter approaches this group of sites as a single group, analysing different aspects on a large scale – in contrast, this section looks at smaller groups based on their location. Focusing on clusters of sites, to search for patterns within a specific area which could highlight small regional patterns of henge sites. The map below (*Figure 43*) highlights modern regions of the British Isles beneath the distribution of sites analysed within this chapter; it highlights that large areas of Scotland, the majority of NW England and the Midlands show empty swathes of land without sites.

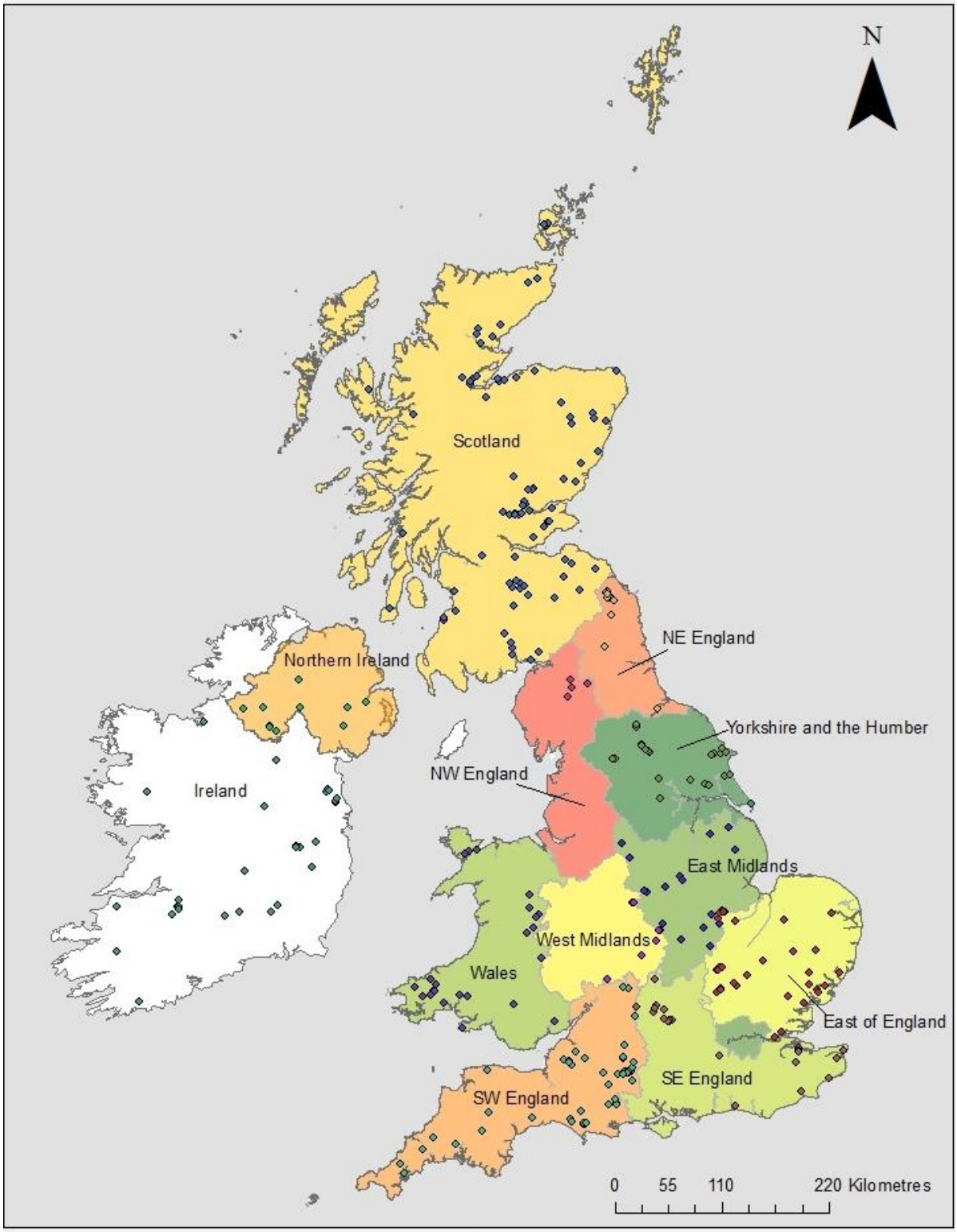


Figure 43: Distribution of sites showing regions of the British Isles

Table 17: Number of sites within regions of the British Isles

Region	No. of Sites
East Midlands	19
East of England	41
North East England	15
North West England	6
South East England	27
South West England	54
West Midlands	7
Yorkshire and The Humber	29
Ireland	30
Northern Ireland	10
Scotland	95
Wales	25

Some of these blank areas correspond to areas of high ground visible in *Figure 43* above, such as the highlands of Scotland, however the area of North West England lies on relatively low-lying ground. The location of sites is not a simple dichotomy of low-lying and high-ground, but instead suggests other locational factors.

Using the point density tool within ArcGIS, it is possible to analyse the clustering of sites across Britain and identify areas of strong concentration (see *Figure 44*). The map highlights some well-known clusters of henge sites (labelled) including Wessex, Yorkshire, Forteviot and the Boyne Valley.[19] Other clusters are visible outside of those already listed, which deserve further focus and investigation alongside those which repeatedly appear in the literature. This section considers whether sites that are found in close geographical proximity reflect groups of henges of a certain type (resulting in the clustering seen in *Figure 44*).

The clusters are discussed below, comparing their location, size, form and other characteristics.

[19] Orkney lies just outside of the produced cluster map but is also a well-known cluster of sites referred to in the literature on henge monuments.

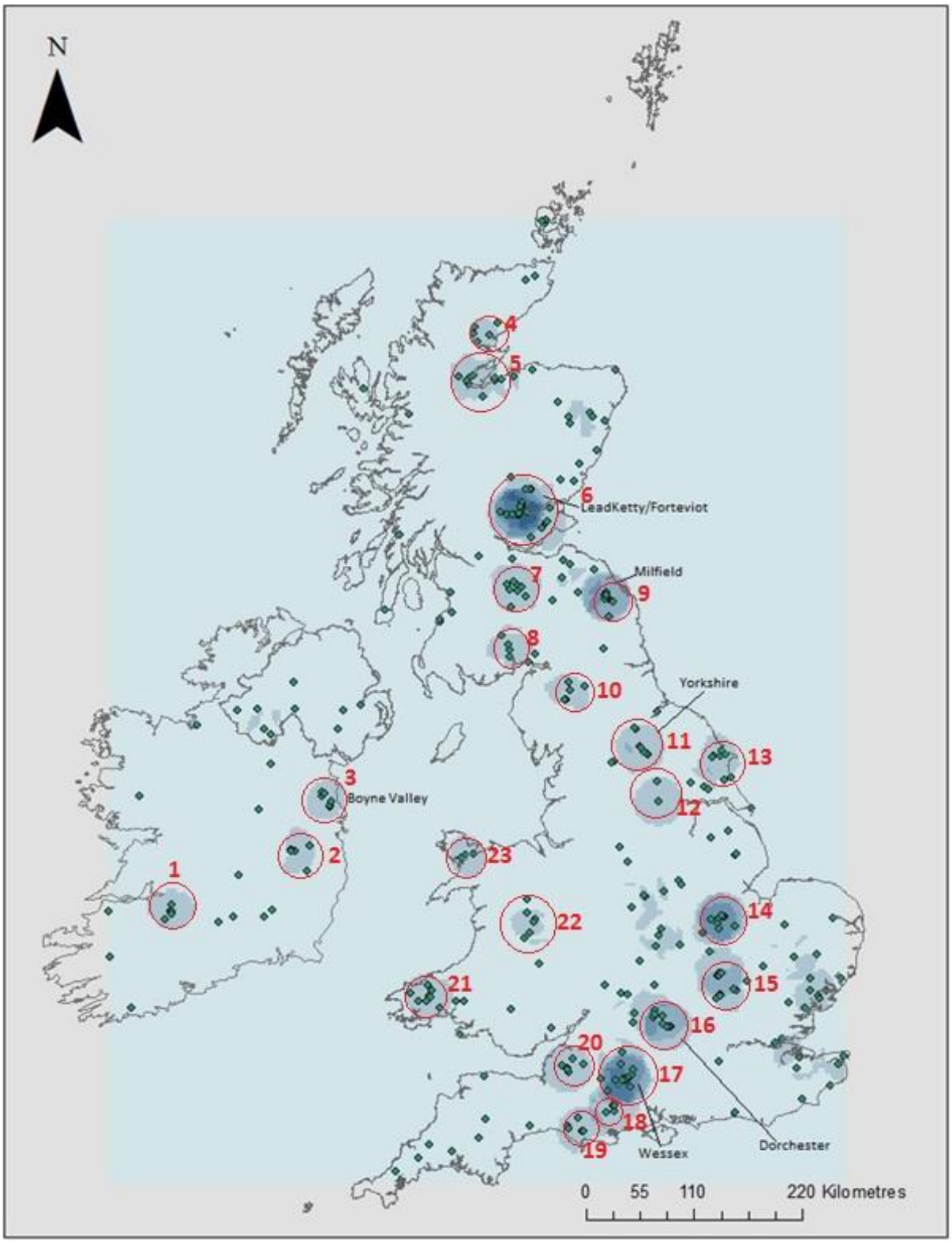


Figure 44: Map showing the point density of sites (total = 358), with some of the main clusters of sites highlighted

Of the clusters seen in Ireland, the majority of the sites are unexcavated. A large proportion have ditches with an external bank but vary in size. One of the main clusters (cluster 2) includes the Curragh monument complex (Ó Ríordáin 1950) which consists of earthworks and burial monuments, including a number of earthworks described as henges. Curragh 1, 4, and 5 have external banks whilst Curragh 6 appears to be a multi-phase barrow. Sites such as Monknewtown and the Friarstown enclosures have a scooped enclosure, often described as a feature of Irish henges.

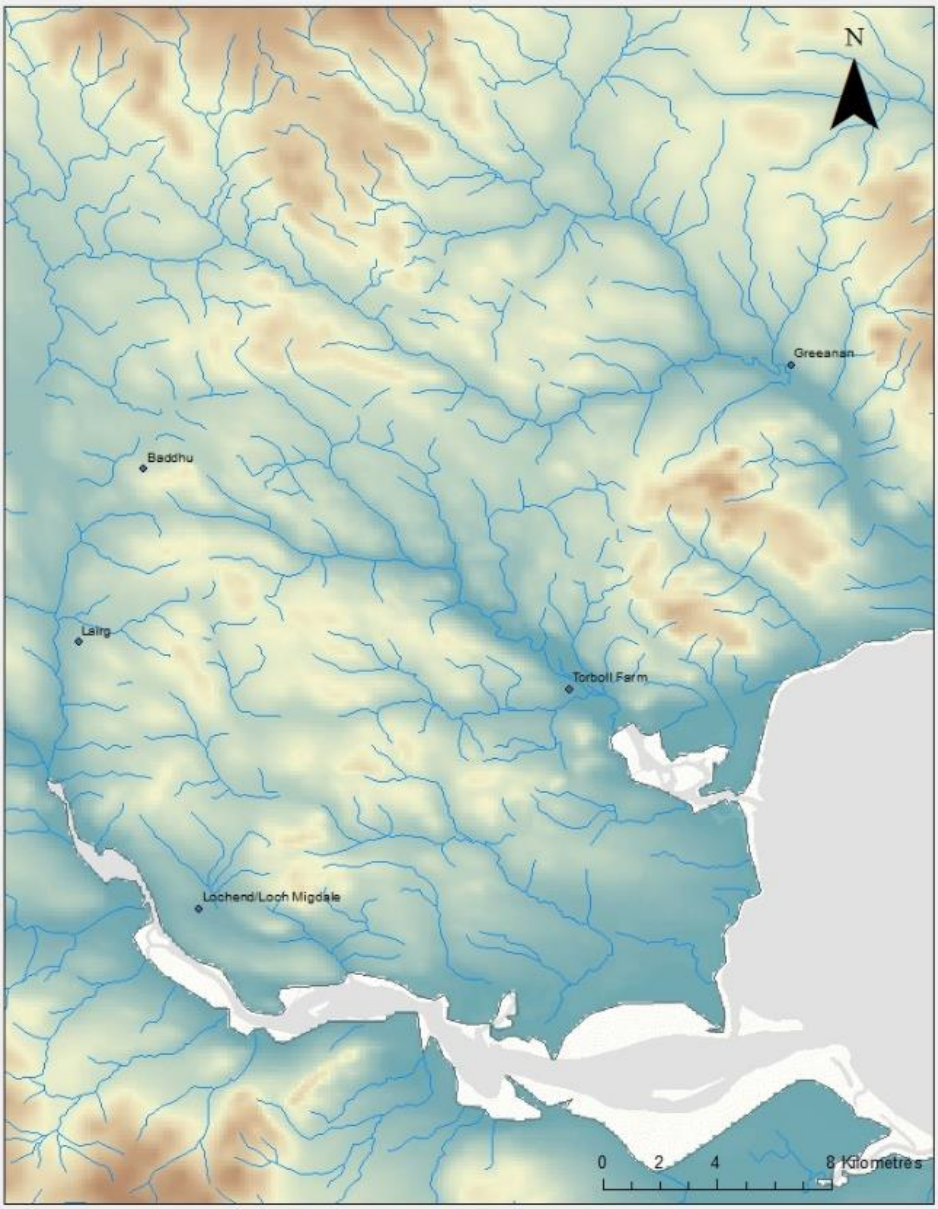


Figure 45: Map showing sites within point density cluster 4

Cluster 4 (*Figure 45*) lies in Scotland and consists of a number of scattered sites. Greeanan has a single ditch with external bank and although half of the site has been destroyed, stones are visible in the interior which could suggest there was a cairn at the centre. This site

has been described as similar to Conon Bridge and Migdale and is situated at the base of a slope on a river terrace. Torboll farm lies in a similar position but in a parallel river valley and survives as a ditch circuit with a single entrance. Lochend/Loch Migdale is another small-sized site with a single ditch and external bank that occupies a low knoll on valley floor, next to Loch Migdale. The small site at Lairg also has an external bank and the site has pits with human remains in the interior that have been interpreted as being a Bronze Age reuse of the enclosure for burials. Baddhu sits further inland on a gentle slope close to Loch Dola and is another small unexcavated site with an external bank. These sites occupy similar locations, close to rivers or bodies of water and are all small single ditch circuit sites (c.12-30m external diameter) with an external bank (where it survives). The sites within this cluster share morphological similarities in that the majority of sites have an external bank and are generally considered to have a small overall diameter.

A further cluster, situated in east Scotland is actually two concentrated areas of sites (Lagnagreishach Wood, Howford Bridge, Heatherdean/Lochside on the one hand, and Culbokie, Cononbridge, Logieside, Muir of Ord on the other) with Achilty and Gask lying slightly further away (see *Figure 46*) . Culbokie is a small site that has a single ditch circuit with external bank and one entrance, however the bank appears to enclose the entire earthwork (although excavation would be needed to determine if the continuous bank was original). Cononbridge is a similar site in size and layout and has been described as similar to Greeanan in cluster 4 (described above). Muir of Ord is a slightly larger site with a similar form but with a mounded interior. Achilty lies further afield but is similar to Culbokie in that the bank appears to be continuous, however the sites differ in size. Lagnagreishach Wood is a small site with a ditch and external bank and has a cairn at its centre, the site is unexcavated and so whether the earthwork is contemporary with the cairn is impossible to say. Howford Bridge is a similar sized site but survives as a cropmark and lies in a lower position in a river valley. Heatherdean/Lochside lies close to a loch and survives as the remains of a ditch circuit with two entrances but is partially destroyed by a road. Gask lies some distance away and is badly damaged by a road and by a pine root. Gask has an external bank and lies close to a standing stone and a cairn in the valley of the river Nairn.

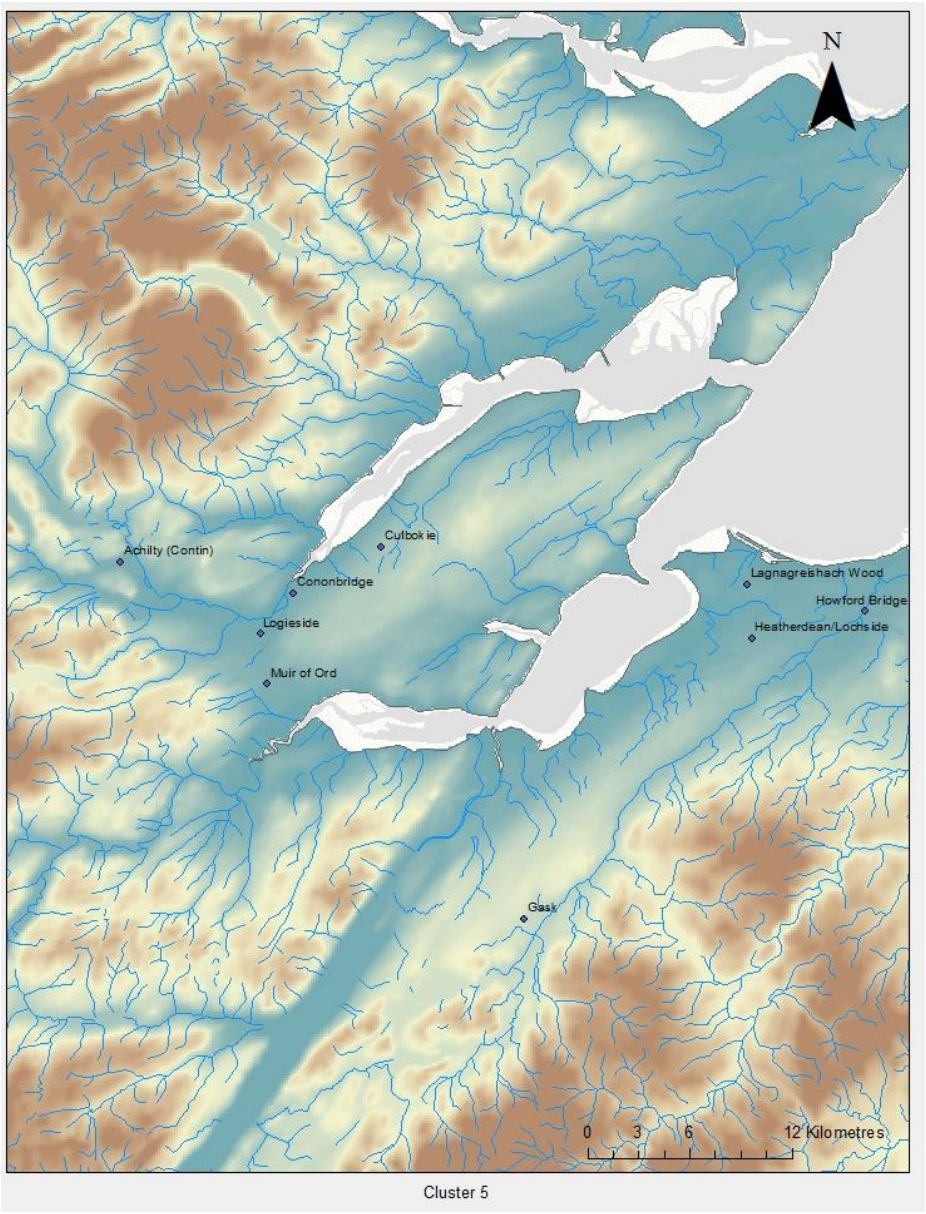


Figure 46: Map showing the sites in point-density cluster 5

Of the clusters in Scotland, the majority of sites are unexcavated earthworks or cropmarks. The size varies, however a larger proportion of sites appear to be between 12-40m in diameter and the clusters seen above match those identified as clusters of small henges by Bradley (2011b: illustration 6.8). A number of sites have been described as similar to each other; Greeanan has been compared to Migdale and Conon Bridge, and Balfarg is similar to Broomend of Crichie. Bradley also compared Lagnagrieshach Wood and Pullyhour as comparable to Irish ring barrows, which have external banks and internal ditch circuits (Bradley 2011b: 175-7). He highlights that some examples of Irish ring barrows also share a bank that blocks the entrance with some of the Scottish sites (*ibid*: 176).

The variety of size suggests that there is no clear pattern in each of these clusters, and the number of unexcavated sites limits the comparison to form in many cases. The clusters do show a large number of small henge sites in Scotland and of those that have been excavated there are a number of sites with timber or stone settings (e.g. Forteviot henges, Lochend/Loch Migdale, Brownsbank).

Within cluster 10 lies the group at Eamont Bridge which consists of King Arthur's Round Table (the typical two entrance henge alongside the river), and the unusual single entrance henge Mayburgh. Mayburgh is a single bank constructed out of waterworn pebbles and stones, with a single entrance facing down towards the river and intervisible with King Arthurs Round Table which has entrances aligned alongside the direction of the river. A third site is also described as lying close to the river and survives as partial bank segments. The surviving sites are very different in form despite their close proximity to each other and neither site is aligned towards the other, which highlights the individual significance within the landscape.

The sites of the Milfield Basin (*Figure 47*) appear to have a linear arrangement, from Linthaugh in the north, to Akeldsteads and the Wooler Cricket Pitch site to the south-east. The cropmark at Linthaugh has a broad ditch with an internal diameter of 25m and three potential pits visible as cropmarks within the ditch circuit. Flodden Camp is situated on a gravel terrace above the River Till and is thought to be a large henge (c.165m) with a broad ditch that was reused and modified in later prehistory. Two smaller sites are situated at Whitton Hill; site 1 has four breaks in the ditch circuit and is associated with an internal pit circle and has a diameter of 10m. Neolithic pottery was found at the site along with a cremation within an urn resembling Peterborough Ware. The second Whitton Hill site is plough damaged and could be a similar site or the remains of a barrow. Milfield North is comparable to Whitton Hill 1 in that it has a broad ditch surrounding a pit circle, however Milfield North has two original entrances and also has an external circuit of pits of which some were found to have held posts. The cropmark site of Milfield South lies further south and has a broad 5m ditch surrounding an interior of c.25m. Excavation revealed evidence for an external bank and that the ditch was of a segmented form, however the interior was plough damaged and a number of pits were found which could not be dated. A large central pit appears to have originally held a setting of stones and was associated with burnt material

which was dated to the Late Neolithic-Early Bronze Age. The River Till flows close to Milfield South and a stream also lies close by. A short distance away is the Coupland site which consists of an asymmetric ditch circuit and external bank with opposing entrances.

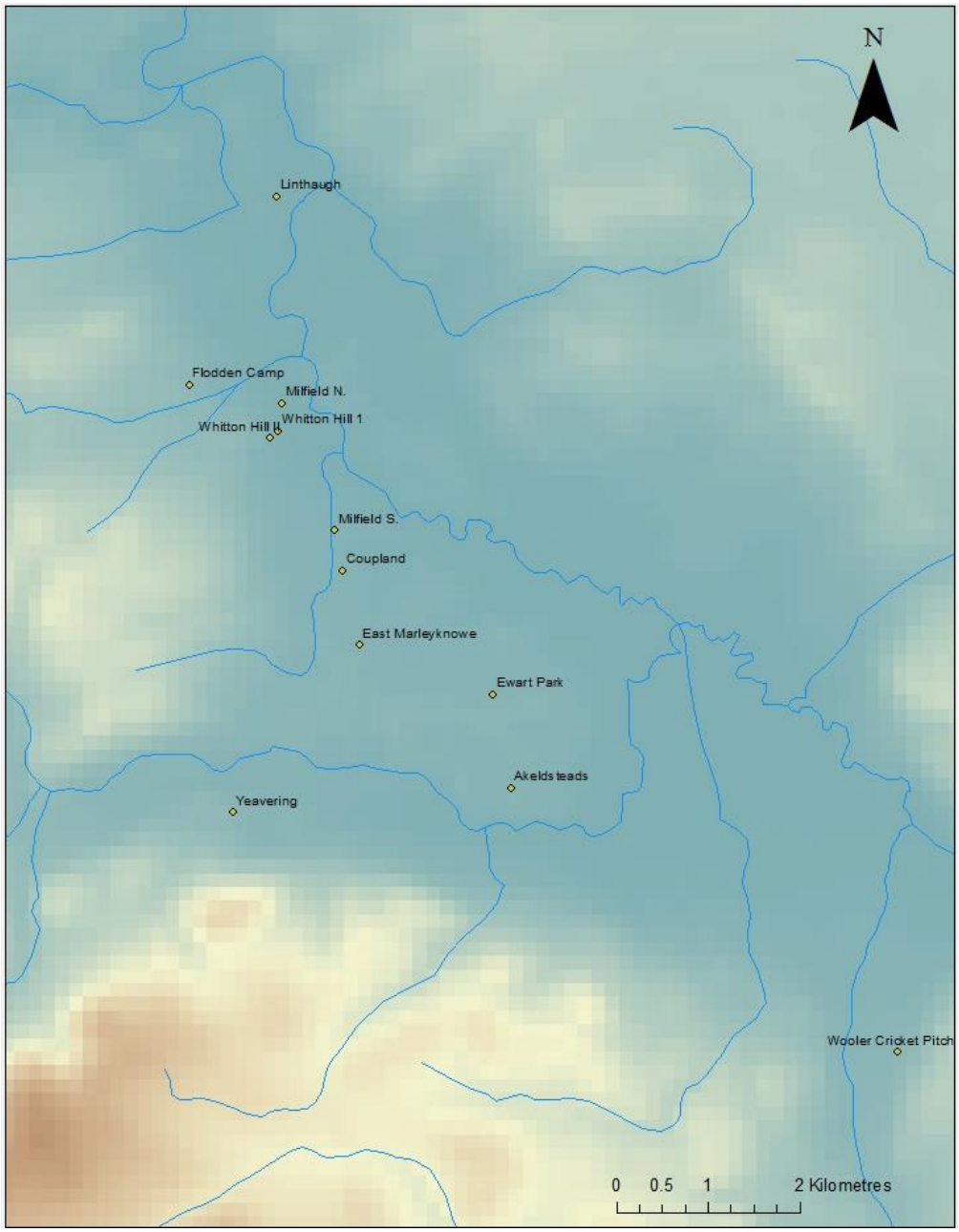


Figure 47: Map showing the Milfield basin complex and surrounding sites from point-density cluster 9

The site has evidence of Early Neolithic occupation in the form of burnt hazelnuts and Grimston Ware. Construction of the earthwork was followed by a linear avenue known as The Droveway, which passed through the northern entrance to Coupland. There is debate as to the dating of the droveway with Edwards (2004) questioning Waddington's (1996; 1999) assertion that the enclosure and droveway were contemporary Early Neolithic structures;

instead Edwards argues that the droveway was a later addition. Ewart Park and Akeldsteads are both cropmark sites with visible pit features within the interior; both sites have entrances aligned roughly NW-SE which is a common trait of the sites within the basin and is aligned parallel to the course of the river. Yeavering lies east of the main alignment of sites within the basin (see *Figure 47* above) and sits on a terrace-like knoll near the river Glen, with the Yeavering Bell hillfort to the south. The Yeavering enclosure has two opposed entrances aligned NW-SE and aligned in relation to a standing stone which lies at the base of the hill. The majority of sites within this cluster have two opposed entrances which appear to all lie roughly NW-SE and associated with the direction of the river and basin and also roughly with the midwinter sunrise.

The Thornborough henge complex in Yorkshire is one of the clusters that highlight a regulated size and form and, therefore, a potential regional pattern. The Thornborough cluster shows a linear arrangement of sites including: Scorton, Catterick, the three Thornborough henges, Nunwick, Huton Moor and Cana Barn (cluster 11). *Figure 48* below shows these sites in their topographic location and highlights the linear arrangement of henges between the rivers Ure and Swale, a comparable location and complex of sites to the Milfield Basin in Northumberland. The Thornborough trio share the same form (1 bank, 2 ditches, 2 opposing entrances) and are almost mirror images of each other at c.100m internal diameter, situated in close proximity with entrances which are aligned upon each other SE-NW. Cana Barn and Nunwick are single bank and ditch sites with a similar internal diameter, whilst Hutton Moor has a second ditch and resembles the Thornborough henges. This cluster has a group of sites with clear morphological similarities in the Thornborough sites and Hutton Moor, whilst there is variation between the remaining sites; Catterick is comparable to Mayburgh (Northumberland), whilst the other sites have a single ditch circuit. There are similarities between this cluster and other clusters within Yorkshire (see below); the Yorkshire sites will be looked at in closer detail in *Chapter 7*.

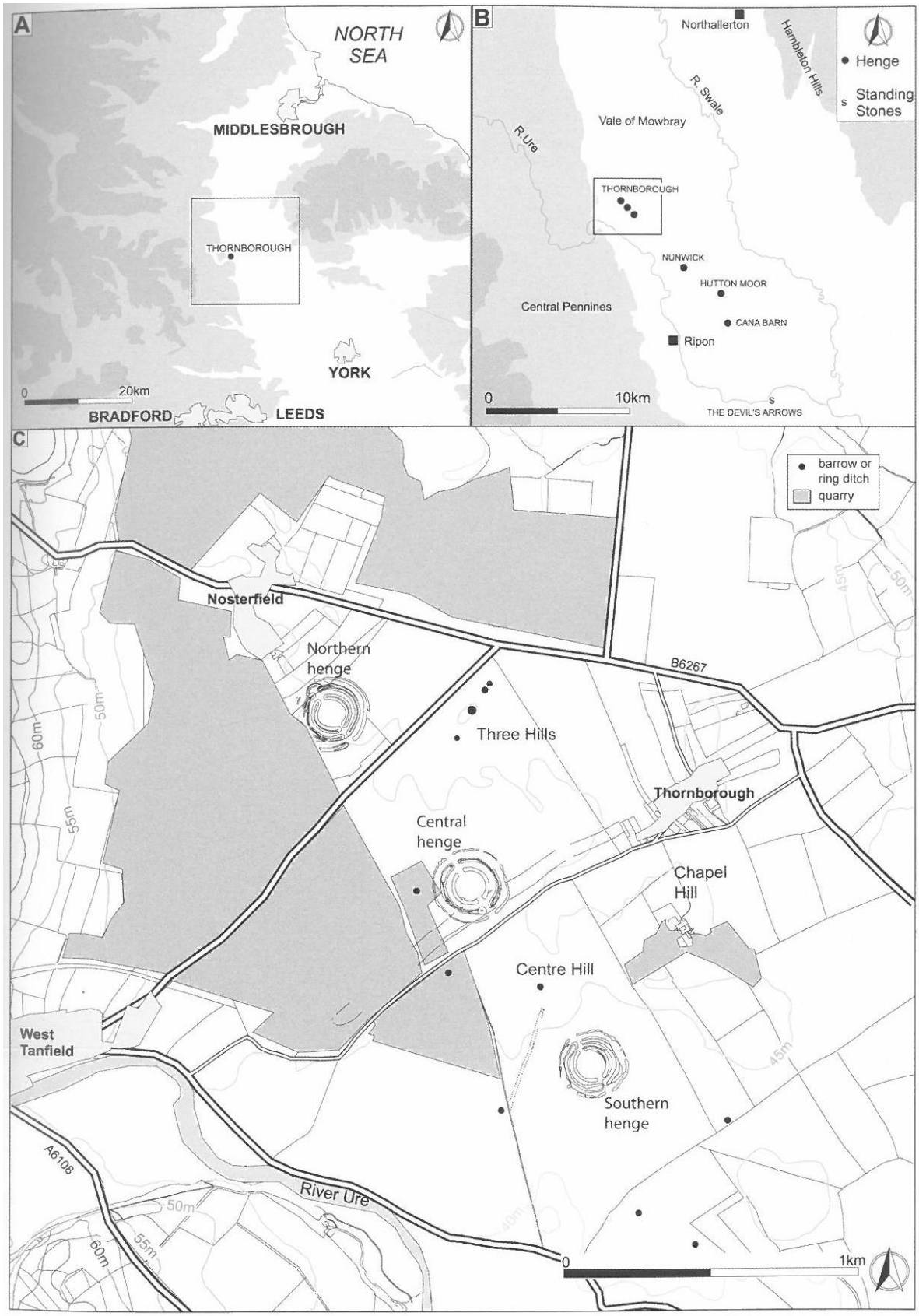


Figure 48: Location of Thornborough and other henges (Harding 2013: Fig 1.2)

Ferrybridge, which lies amongst a complex of earthworks, is also comparable to the Thornborough henges in its size and form. The surrounding earthworks (cluster 12) which have been identified as hengiforms, are all much smaller in size (between 15-45m in diameter) with narrower ditches. There are a number of other less well-known sites in Yorkshire, including those closer to the coast (cluster 13, *Figure 49*). Within this group, Maidens Grave, Octon Lodge and Walkington all have an overall diameter of over 100m.

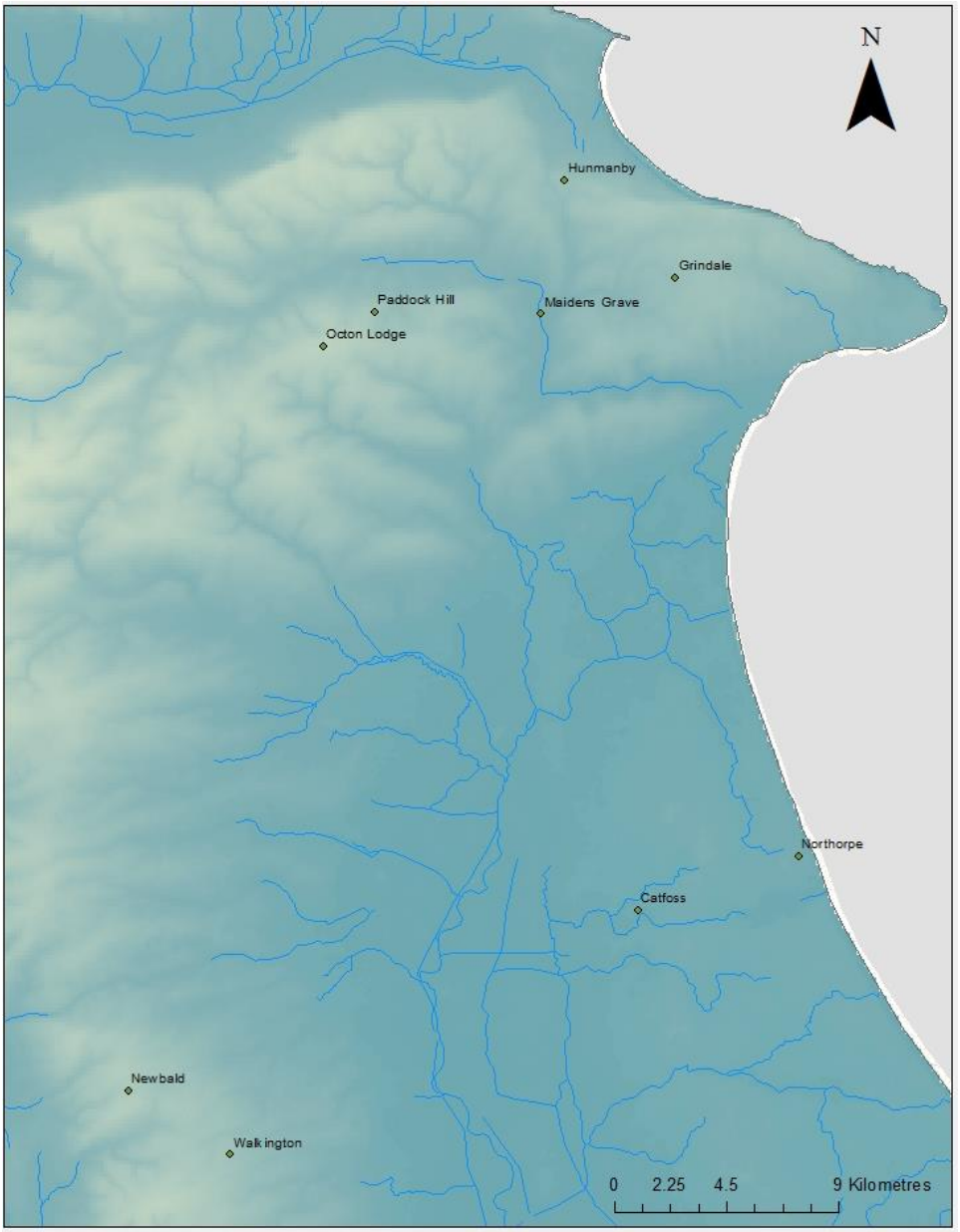


Figure 49: Map showing location of sites in point-density cluster number 13

The multiphase site at Paddock Hill, Maidens Grave, and Catfoss, are the only sites to have seen excavation. The first phase of Paddock Hill is that seen as a henge, which was then reused and enclosed with further ditch circuits in the Late Bronze Age. Maidens Grave

appears to have a barrow within the interior and is located on a river terrace surrounded by further barrows; this position with a barrow cemetery is mirrored at the Grindale and Newbald sites which also sit within large barrow cemeteries.

The cluster of sites at Dorchester (cluster 16) are irregular but are often considered to be atypical henge monuments. The Dorchester complex consists of a number of ring ditches, a cursus, and other cropmark sites. Sites IV, V, VI all have similar small segmented ditch circuits with small holes in the base of each pit and associated with cremations. Dorchester Big Rings site is a double ditch site with two opposing entrances and was interpreted as not having a burial focus and is, therefore, the most comparable to other henge monuments, although the ditches are narrow. Several sites lie within this density cluster but are further afield. Hanborough 4 is a small single entrance ditch (10m) with the ditch described as possibly holding timbers. The site is enclosed by a later ditch circuit and sits within a complex of ring ditches. Deadmans Burial 2 is a similar sized enclosure with two entrances which sits within a causewayed enclosure. Devils Quoits is a large site which had several hearths within the enclosure and with a later-phase stone circle. The Northfield Farm earthwork has been compared to Litton Cheney and henge-barrows. The size of these sites differs; the main similarity is the position on a river terrace or ridge.

The cluster over the Wessex region surrounds the Stonehenge landscape, with a number of other sites lying further afield (see *Figure 50*). Durrington Walls is a large earthwork enclosing an earlier settlement. It is linked to a smaller site, Bluestonehenge, by an avenue, and to Stonehenge by the river. Durrington Walls is often grouped with other 'henge-enclosures' including Avebury and Marden which are sited close by; these sites are over 400m in diameter and have large substantial earthworks. Avebury and Durrington Walls are near-circular whilst Marden is an irregular shape. Avebury sits within a complex of other Neolithic and Bronze Age sites, including barrows and avenues. Marden lies on lower land than Avebury to the north, and the Stonehenge landscape to the south; a smaller site known as the inner henge lies within the earthworks of Marden henge, and a further henge lies close by at Wilsford. Wilsford has a broad ditch and has been compared to the irregular ditch of Woodhenge. The sites within this cluster differ in size, but three of the four known large-scale henge-enclosures fall within this region. The henges within the Stonehenge landscape also all differ in shape, size and date. Durrington Walls sits in direct contrast to the smaller

sites of Woodhenge and Bluestonehenge. Fargo has two opposing entrances and asymmetric ditch segments and can be compared to the form of Arbor Low (Derbyshire). Whilst there are large amounts of difference within the sites seen in *Figure 50*, the complexity of the monument complexes is substantial. Considering the henge as an act of enclosing previously important space is supported by the contrasting sites of Durrington Walls and Bluestonehenge – Durrington Walls enclosing the area used for settlement, and Bluestonehenge which enclosed the site of a removed stone circle.

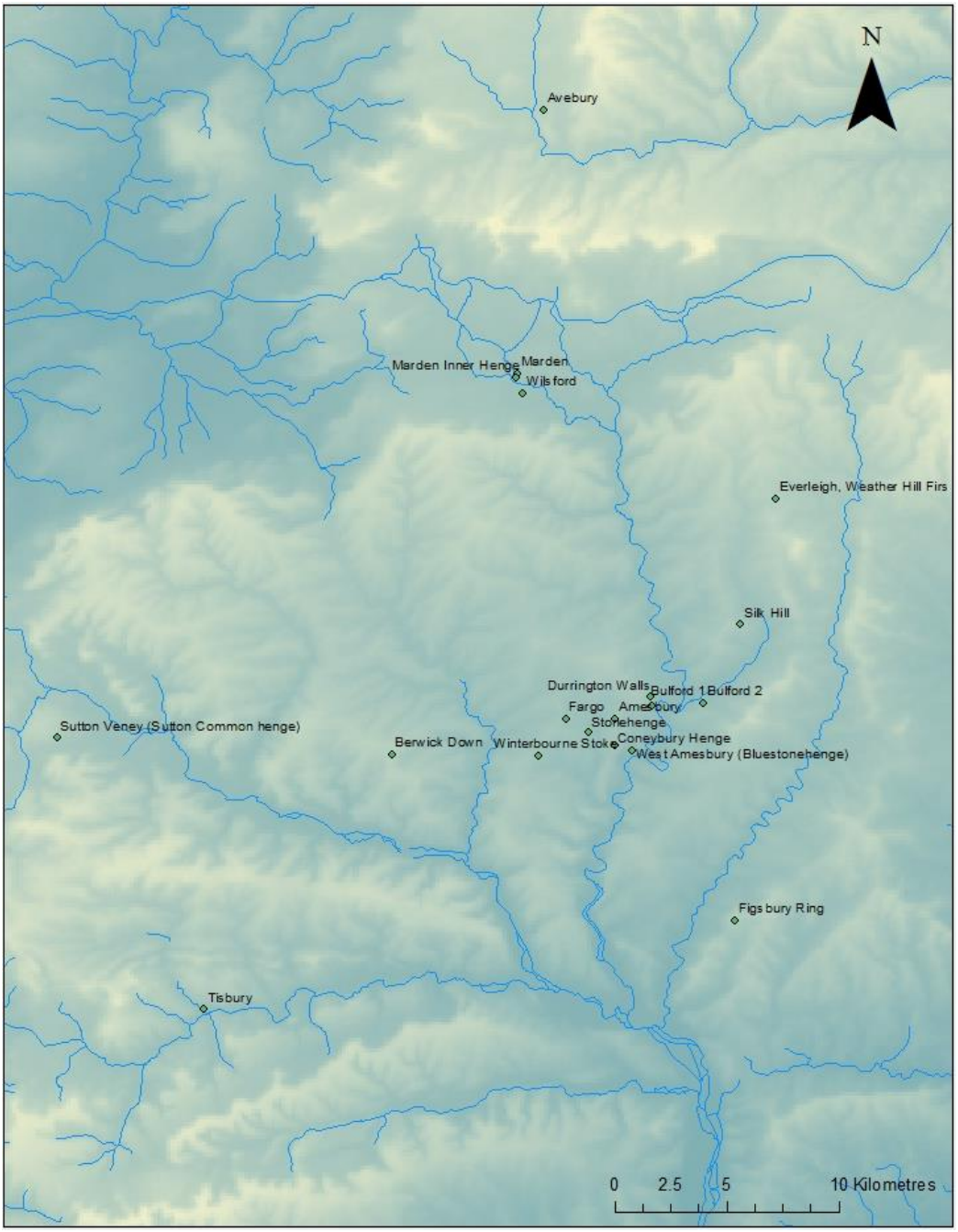


Figure 50: Sites within point-density cluster 17 which covers the Wessex region

The cluster of sites at Knowlton are also distinct from each other in size (Cluster 18). The surviving henge (centre or Church Henge) lies at the centre of a complex of henge-type earthworks and barrows seen as cropmarks (see

Figure 51 below). The complex of sites is situated on a low ridge close to the River Allen's source at Wimborne St Giles, and the area became a focus for burial monuments (there are over 170 within a 1km radius of the henges – see Gale 2012). Of the three earthworks that have been classed as belonging to the henge class, the central henge (or Church henge) and the large Southern Henge appear to resemble the typical henge form. The Northern Henge is smaller and has an irregular shape that has been compared to the lozenge shape of some long barrows in the Dorset region, leaving its classification uncertain.

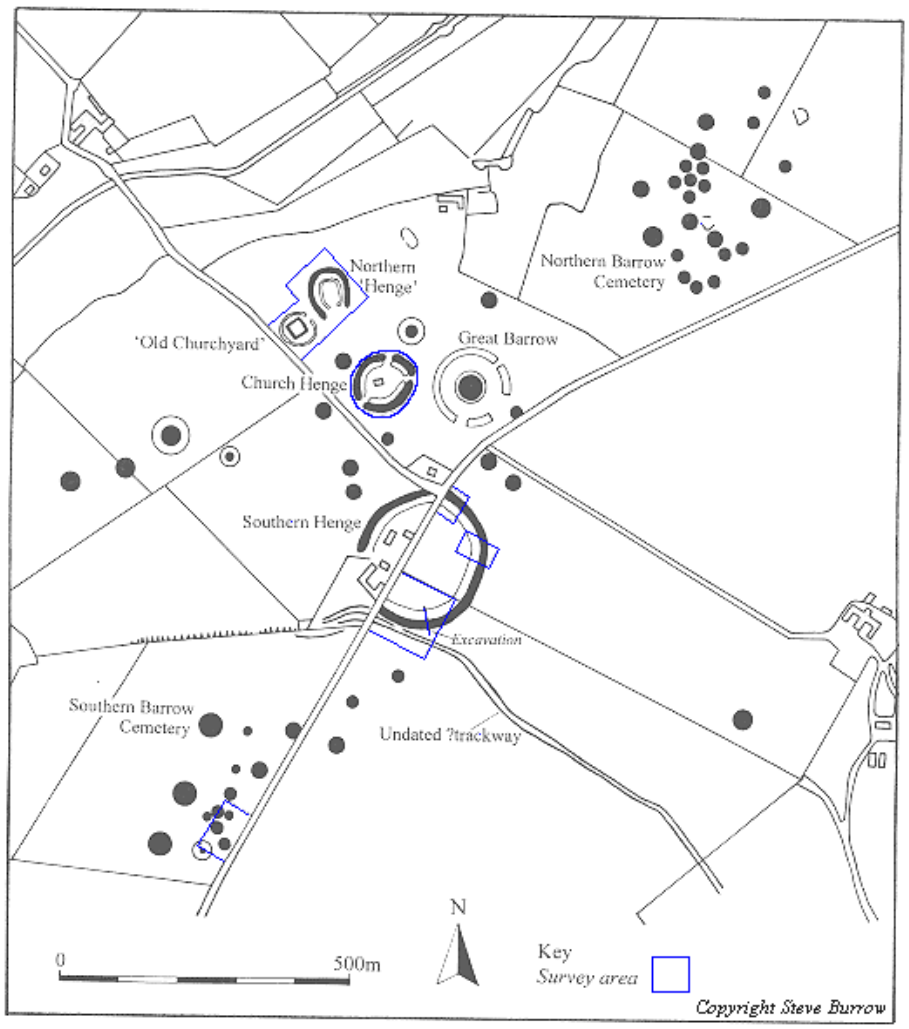


Figure 51: Map of the Knowlton Complex from a Bournemouth University research project, Copyright: Steve Burrows

Also lying nearby are the pit-circle constructed sites at Wyke Down; the two earthworks here lie on flat land and are aligned towards each other and on a low hill where a Later Neolithic occupation site is known to overlay a cursus. These sites are much smaller than the sites at Knowlton (c.20m, compared to 100 - 250m) and appear to have a multiphase history with deposits associated with Grooved Ware, Collared Urns and Beaker pottery (see Barrett *et al*. 1991 for an analysis of the deposition of material culture). A similar sized possible henge can be found at Tarrant Monkton – the site has a single ditch and external bank circuit with a single entrance and sits on a gentle slope with a commanding view.

Mount Pleasant is one of the four large henge-enclosure sites (370m diameter) which has a ring ditch with internal timber circles within its interior (Site IV). The henge lies on a ridge, with Maumbury Rings lying nearby. This area is also a focus for barrows in the surrounding landscape. Dorchester By-Pass Sites A and B are also found close to Mount Pleasant but are much smaller, at c.15m in diameter. They are also constructed differently, with an irregular spaced ring of pits instead of a continuous ditch. Within this point cluster also lies Litton Cheney and Eggardon, which are situated on a high ridge c.14km from the Mount Pleasant cluster. Litton Cheney is a multiphase site, with its initial phase considered to be the construction of a henge, followed by the construction of a timber structure and then cremations associated with a cairn. Eggardon is a larger site with a diameter of c.65m and appears to have a barrow at its centre and a barrow lying on top of the bank in the south-west sector. All the sites within this cluster (Cluster 19) occupy similar ridge positions in the landscape, however they differ in size and ditch form.

Cluster 20 includes the Priddy Circle monument complex which sits on a raised plateau close to several springs whilst Gorsey Bigbury and Hunters Lodge are also sited nearby (see *Figure 52*). The Priddy Circles are 4 circular earthworks which have a single ditch circuit external to a bank and all four circles have a similar size, ranging from 180 to 190m maximum diameter. The Priddy sites are considered henge-related due to the difference between them and the surrounding barrows, however further investigation would be needed to add weight to this view. Gorsey Bigbury lies to the north-west and has a typical henge form and a lack of interior features but is much smaller in size at 46m maximum diameter; similarly, Hunters Lodge is also c.46m in diameter with a typical one ditch and one external bank form with a

mound lying within the interior that is considered to be a later addition due to its off-centre position.

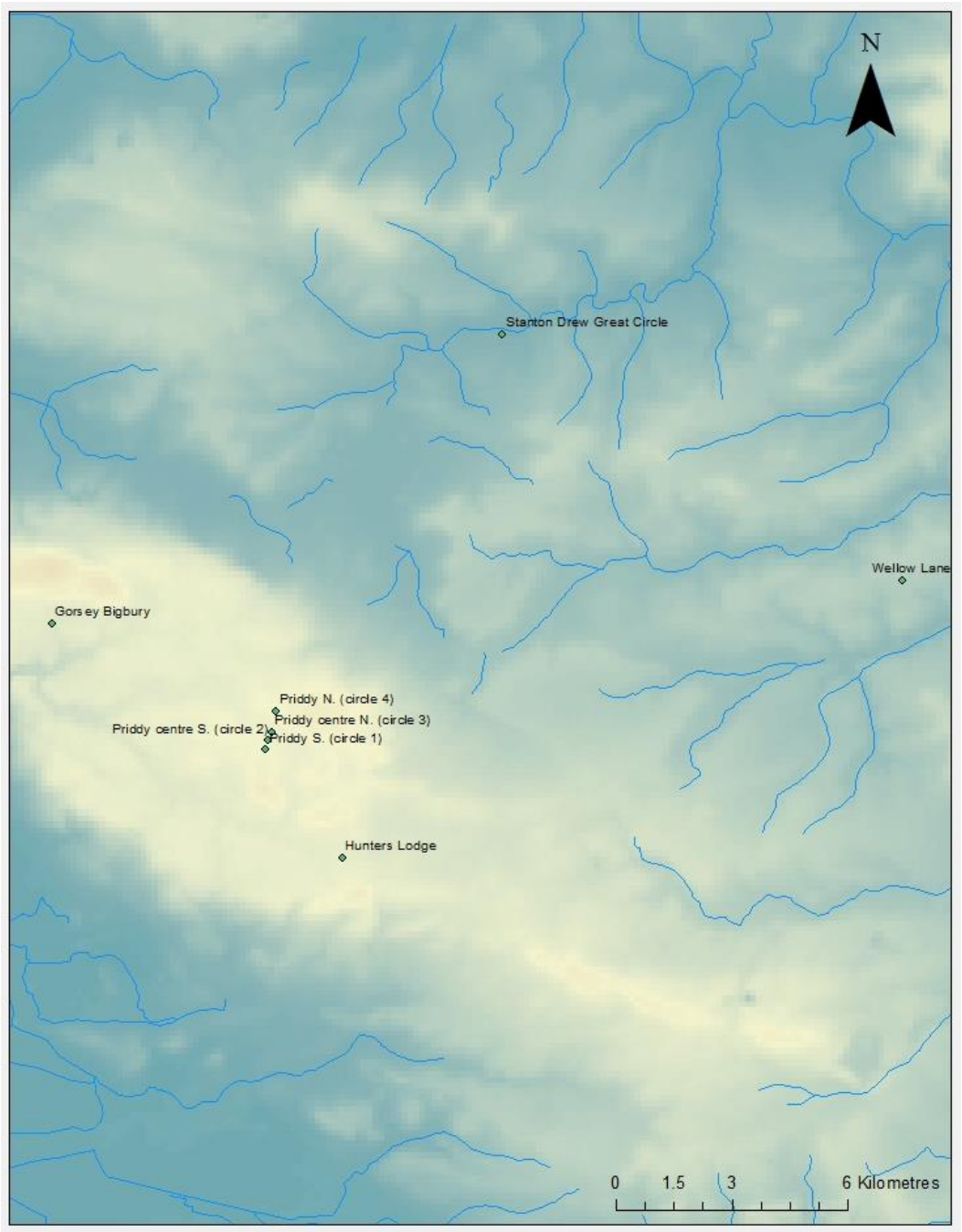


Figure 52: Map showing the sites within point-density cluster 20

The cluster of sites in the western tip of Wales includes a range of sites including Vaynor Farm and Meini Gwyr. The ditch at Vaynor Farm is a substantial rock cut circuit with evidence of fire-setting and an oval setting of postholes within the interior. The site sits on a rounded hilltop close to the confluences of the rivers Taf, Cynin and Dewi Fawr. Meini Gwyr is an embanked stone circle site that has been considered as henge related due to the

similarity to Irish henge sites. Within this cluster (cluster 21) there is also the embanked stone circle at Gwaun Terrace which is an unexcavated multiphase site, and two embanked enclosure sites at Llainbanal and Pantymenyn which both require further investigation.

A similar embanked enclosure lies on the prominent western Kerry ridgeway in the cluster in central Wales (cluster 22): Black-Gate Enclosure survives as a broad bank with two entrances. The similarities of these to the embanked enclosures termed 'Irish henges' is clear and it is interesting that there is a cluster in Wales. The Black Gate Enclosure is part of a cluster of very different sites: Glan Mule is often referred to as a possible mini-henge, Welshpool appears to be a pit circle thought to be a hengiform, and Dyffyn lane is a henge with a stone circle and later barrow within its interior.

The Llandegai cluster (cluster 23) consists of a complex of sites including barrows, cursus' and other earthworks including three which are considered to be henge monuments. The sites lie on the flat summit of a gravel ridge flanked by deep valleys on the Afron Plateau, set within a natural amphitheatre. Site A has an internal bank and appears to have a pit circle and several cremations associated with it. In contrast, Llandegai B has an external ditch and is slightly smaller in size. Llandegai E however is a very small site, with a diameter of c.8m in contrast to the 69-88m diameter of sites A and B.

The clusters investigated here are areas where henge sites are concentrated, as evidenced using ArcGIS. The sites in this section have been discussed by reference to variables including morphology, size, landscape location and orientation. By focusing on specific clusters and individual sites within these clusters, the focus moves from numbers and statistics to a more contextual view of henges within the landscape. This discussion has highlighted the variation within and between clusters of sites; whilst there are patterns of form or alignment within Yorkshire, Milfield and within the henges of Scotland, no cluster exhibits a coherence between all sites within it. There are also cross-cluster similarities, with henges such as Mayburgh (Cumbria) and Catterick (Yorkshire) having a similar form to henge sites in Ireland.

5.6 Summary

This chapter has considered the form and features found within and associated with the earthwork, removing the finer details relating to date and sequence. The database has compiled a list of all sites currently and historically considered as henge monuments, before excluding those which have been classified as a different category upon further investigation

(*Table 3; Section 5.2.1*). There are 187 sites, ranging from natural cropmarks to WWII searchlight batteries, which have been excluded from further analysis; this shows the large number of sites inaccurately identified as henge monuments based on form alone. The reason for excluding the majority of sites is due to a lack of information or the likelihood that they are in fact not henge-related. Through analysing the classic literature (Harding and Lee 1987 etc.), the term hengiform has clearly had a significant impact in the growth of this monument class. This chapter has suggested that hengiform has gone from being applied to sites that were thought to be early or 'formative' henges, to becoming a term for uncertainty (see *Section 5.2.2*).

Analysing the form of the henge earthwork has shown that the forms that regularly occur within sites termed henges are unsurprisingly those most like the original definitions suggested between 1936-1987. Single ditch circuits with one or two entrances and an external bank and ditch circuits which have no evidence of a bank with one or two entrances, make up the majority of sites within the database (*Table 6*). *Figure 23* attempts to map out the natural extent of the morphological definition of a henge and highlights the concentration of single ditch and bank forms within this dataset. Moving beyond this, *Figure 24* puts the forms within a range of contemporary (Neolithic-Early Bronze Age) monuments to show the similarity of form and shape among a large number of site types during this period.

Analysing features associated with henges is limited due to the number of sites that have been excavated, but also because those that have are often only partially excavated. The prominence of pit-features is clearly shown (

Table 12*; Section 5.4.3*) and the number of sites associated with human remains highlights that the suggestion that henges were not associated with the dead is unhelpful; however, understanding the sequence is essential and discussed further in *Chapter 6.*

Using ArcGIS to assess height, slope, and cost distance from the nearest river has highlighted that most sites lie in proximity to water or have a low cost-distance value (see *Section 5.5.1*). Point density analysis provided a number of clusters of henge monuments outside of the traditional core areas of Wessex, Orkney and Yorkshire (see *Figure 44*). Whilst some regional patterns do appear to be significant (e.g. the repetition of form at Thornborough and similar

forms at other Yorkshire sites; the linear arrangement along a watercourse at Thornborough and Milfield), *Section 5.5.4* above highlights that the amount of variation between and amongst clusters throughout the British Isles is high within groups of sites within close geographical proximity (some of these clusters are discussed in detail in *Chapter 7*).

The methods of analysis within this chapter has highlighted some simple overarching patterns, including:

- the predominance of single ditch and bank forms with 1 or 2 entrances;
- a general tendency for a broad ditch-interior ratio, supporting the argument first proposed by Harding and Lee (1987);
- a general pattern in entrances aligned towards SE for single and double entrance sites;
- a tendency for sites to sit on lower ground, with a low cost-distance to the nearest water source; and,
- the predominance of pit-related activities at henge sites, within a vast range of feature relationships.

In contrast, the cluster analysis highlighted a number of concentrated areas of sites outside of those traditional core areas, however, further discussion on the similarities and variation of sites within the clusters stresses variation within a small geographic area. This analysis stresses that geographic proximity does not, in most cases, lead to the repetition of site form. Similarly, analysing the relationships between features supports the idea of a varied range of uses for henge sites, with pit-related features occurring most often but with a vast range of relationships creating a complex picture (see *Section 5.4.4*).

Whilst this chapter has highlighted a number of general patterns within the catalogue of sites, it has also highlighted the variation. From form and ditch-interior ratio it is possible to suggest a general notion of a henge type, however the type does not then follow with clear geographical clustering and the variation in features. Loose patterning has provided avenues for further investigation, taking into account sequence and dating of sites and features. The variation discussed above highlights how significant studies of individual sites are for understanding site creation and sequence; biographical approaches on individual sites focus

on the unique aspects of a site, to highlight the sequence of events that lead to the creation of a site and the effect of an earthwork on the use of the landscape.

This chapter has highlighted some patterns within this corpus of sites, however using such a 'flat' analysis leads to simple overarching patterns that need to be developed using further analysis and considering sequence and use in the following chapters. The classic literature on henges has had a considerable effect on the recording of henge sites, as can be seen by the growing use of terms such as hengiform. The variation of form and features also suggests that there is a complex relationship emerging between earthwork and site use that needs to be teased out through further investigation.

Chapter 6 – Sequence, Chronology and Dating

6.1 Introduction

Chapter 5 explored the wide diversity of henge characteristics in an attempt to discern any noticeable patterns in their form, size, function, location and/or range of features. Building on *Chapter 5's* analysis and the underlying data, this chapter considers the chronology and sequences of events at henges, in particular, by focusing on sequence, dating, and activities of maintenance, reuse and remodelling.

In order to critique the previous understandings of henge chronologies, and the sequences of activities at henges, this chapter will assess the dating evidence collated throughout this project. Chronology can only be appropriately considered for those sites which have been the subject of detailed excavation, because of the availability of datable material. Scrutiny of chronology can be helpful in the sense that it provides us with the ability to understand the relationships and interdependencies between different features through stratigraphy, period specific material culture, and organic material for radiocarbon dating. Given that it is through excavation that we are able to discern these features, it is unsurprising that the underlying data regarding sequence and dating comes primarily from excavation reports (see *Chapter 4*). However, the sample of sites where sequencing and dating is possible is limited by several factors, including: a lack of organic material for radiocarbon dating; the extent of the excavated area; and, a lack of sequencing information between features. The limitations of radiocarbon dating are discussed in detail in *Section 6.2.1* below, however, for earthwork sites such as henge monuments, the main difficulty when considering dating is a lack of clarity around what event is being dated.

This chapter looks to make sense of this and investigate how henge monuments have developed over time at a site level by looking at dating and sequencing for individual sites in order to discern an overarching 'type', through the information gathered from previous attempts to interpret site chronologies and radiocarbon dating. It will explore the dates that relate to henge construction and modification and review the possibility of henge earthworks being the result of an act of enclosing a site of previous activity.

6.2 Approaches to time, chronology and dating

Scientific dating methods are now an essential part of the archaeological discipline; however, each new development has an impact on the established chronologies, forcing us

to step back and rethink the perceived 'known' (*e.g.,* the first radiocarbon revolution, see Renfrew 1978). Chronologies are traditionally built up through a combination of radiocarbon dates, identification of material through typology, and stratigraphy – each with their own limitations - and are, therefore, 'less than perfect' (Whittle 2018: 1). Publications dealing with dating and large-scale subjects are often seen as generalising narratives and often gloss over the detail and variation in the archaeological record; this arguably stems from the imprecise dates which can be assigned to the past.

6.2.1 How useful are radiocarbon dates for understanding henge chronologies?

Radiocarbon dating fundamentally changed the way many fields throughout academia approach dating. However, for archaeology the main limitation of radiocarbon dating is that it simply is not (or at least has not been) accurate enough to precisely date contexts and events. While a third of single dates can provide a date range of less than 50 years, the majority provide a range of around 100 years or more (Ashmore 2003; 2004). Writing in 2004, Ashmore suggested that current dating can only routinely fix an event to within around 200 years (2004: 125). Due to this significant range, Ashmore suggested that dates obtained during a time before error margins were known (and addressed) should be disregarded.

Despite these inaccuracies, it is problematic to suggest that all known dates, save only the most recent, should be discounted. Rather, recognising the weakness of such dates, allows this data to still be used to enrich and better inform the debate. Dates can be considered 'weak' due to a number of factors including being measured before 1982, when the inaccuracies were unknown, laboratory conditions, the material which is being dated, and the possibility of residual material making its way into group samples (see Ashmore 2004: 125). A further consideration is what the radiocarbon date refers to; dates relate to the material dated itself and, therefore, extrapolating such information as a means of dating features and sites comes with its own set of problems. Timber from a timber feature may provide an accurate date-range for the period of construction, however, dates relating to material in the fill of a ditch, stonehole or pit could relate to a later period, furthermore the old wood effect must also be considered.[20] Artefacts such as antler picks perhaps provide

[20] The old wood effect/problem is encountered in radiocarbon dating when aged wood is deposited, which can be misleading when used to date features. See Schiffer 1986 for a thorough discussion.

the dating material which is directly associated with the act of earthwork construction. Traditional radiocarbon analysis is often a visual assessment of the calibrated date, yet radiocarbon dates relating to prehistoric Europe can have a range of 100+ years. By taking the extremes of all the related radiocarbon dates, the interpreting archaeologist can suggest a single range which, for a prehistoric context, can extend to a number of centuries. Furthermore, a plateau occurs in the calibration curve between 3400-3060 BC affecting our ability to precisely date sites and is a significant limitation in using radiocarbon dating for sites of this period. In contrast, alternative techniques such as dendrochronology can provide precise dates right down to the year, and often a range of months within any given year. Unfortunately, there are very few waterlogged contexts at Neolithic and Bronze Age henges where suitable timber for dendrochronological analysis can be preserved.

6.2.2 Increasing resolution

One relatively recent method of enhancing the accuracy of radiocarbon dating is that of Bayesian modelling. This current trend of linking radiocarbon dates to statistical modelling (see Bayliss *et al*. 1997; Bayliss and Whittle 2007; Whittle *et al.* 2011; and Whittle 2018) has expanded our chronologies further, with an increased resolution meaning sites previously thought to be contemporary have been dated to c.50 years apart (Lucas 2015: 2). The quest for ever sharper resolution, Lucas argues, 'is the quest to refine what we mean when we say that two sites or features are contemporary (or not)' (2015: 3). It is easier to infer contemporaneity using dates for processes that are long-lasting (e.g., the gradual infilling of a ditch), than it is to suggest contemporaneity between two short-term events (e.g., a burning event) due to the limits of radiocarbon dating (Lucas 2015: 4). Notwithstanding this, it is clear that the use of radiocarbon dating has vastly improved our understanding of absolute chronologies, by providing accurately measured 'discrete packets of time' (Jones 2015: 21). The notion of time as a succession of periods or points, however, suggests a flat view of time where periods or date ranges have bold end points. In his discussion on the relational aspects of contemporaneity, Lucas suggests that the focus of the discipline should be on defining the relationships between things, rather than finding new ways to achieve further increased resolution in dating techniques. In this approach the focus is on the meaningfulness of objects or sites being contemporary, with a wider understanding of what type of contemporaneity is being described (Lucas 2015: 7-12). This approach has been highlighted elsewhere by other relational theorists in recent publications, along with

suggesting a focus on scale and on history as a series of relational bundles (e.g. Robb and Pauketat 2013a; also see above *Section 4.4.1*). This chapter will assess the contemporaneity for henge monuments and clusters with the available dating evidence.

6.2.3 A Bayesian approach to henges?

Whittle has recently published the results of his five-year 'the times of their lives' research project which is aimed at precisely dating key features and trends of the European Neolithic (Whittle 2018). Whittle argues that a Bayesian approach to dating can allow for more detailed narratives, restoring 'to centre-stage a sense of past people's actions, choices and decisions' (Whittle 2018: 1). Such an approach combines Bayesian chronological frameworks for radiocarbon interpretation with sample selection and the evaluation of stratigraphy, context, typology and seriation, in order to provide accurate date estimates (Whittle 2018: 2). Rather than continuing in this push for great resolution, perhaps it may be more appropriate and useful to discuss chronologies in terms of lifetimes and generations rather than by radiocarbon years. A long lifetime in the Neolithic has previously been estimated as 70 years (e.g. Whittle *et al.* 2011), however this estimation is arguably at the higher end of the scale and in all likelihood was much lower (Whittle 2018), whilst a generation is considered to be 25 years. A measure such as a generation or a lifetime can be useful at a smaller scale, for thinking about agency, tradition and continuity, and social history (Whittle 2018: 28-32). Focusing on generations and short-term periods of time can illustrate particular events and fit them within a wider sequence of site development (see Younger 2015). Or perhaps the notion of small-scale and long-term narratives can be woven together as Whittle outlines:

> *'Alongside the long term, or perhaps better, woven into it, we can think of a spectrum of histories at varying temporal scales, from the enduring grasp of traditions or the reach of social memory, covering one, two or more centuries, down to lifetimes and generations, measurable in decades.'* (Whittle 2018: 3).

Whilst I will not be employing a Bayesian approach to dating the construction and use of henge monuments over time, this chapter will consider the development of henges as a broad monument type and consider the sequences of use of specific henges. In any event, there are limited dates available for henge monuments, so it is unlikely that a Bayesian approach would be possible. Nevertheless, in *Chapter 8* I will make recommendations for how this may be overcome for future research. Despite the relatively limited sample pool,

the dates which are available do allow us to investigate basic sequences and chronologies, and perhaps allow us to think in terms of contemporaneity.

6.3 Dating construction & pre-henge activity

There are 373 dates recorded within the project database representing 56 sites. Whilst many relate to features associated with the earthwork, a number relate to silting within the ditch or the surface concealed by the bank material. These examples give dates for the construction of the earthwork, but they can also be from intrusive material. Several of the dates relate to the pre-bank contexts or primary fills of the enclosure ditch, usually considered as providing dating evidence for the construction of the henge earthwork. The table below (*Table 18*) highlights those dates that have been considered to provide TPQ and TAQ ranges for henge construction. The table is coloured to relate to general periods: Late Neolithic = green, Late Neolithic to Chalcolithic/Beaker period = orange, Chalcolithic = yellow, Early Bronze Age = blue.

Relatively few radiocarbon dates can be said to date the construction of the earthwork, but the table below highlights those that have been interpreted as suggesting a relative date of construction. The Scottish sites do suggest a focus on henge construction during the Bronze Age, with the smaller sites of Pullyhour and Lairg (c.19m and 12m in diameter respectively) dated to the Middle Bronze Age (see *Figure 53*). The sites in Southern England are dated to the Late Neolithic. There is a large variation in size, with Mount Pleasant and Durrington Walls being two of the largest henge monuments in Britain, whilst the site at Catholme is often described as a hengiform due to its unusual form. There is a lack of patterning relating to the orientation and form of sites and the primary dates within *Table 18*; a number of the sites have single ditch and bank circuits, however, the size and entrance orientation varies within each period category.

Table 18: Radiocarbon dates relating to, and interpreted as, dating the construction of henge earthworks, processed using Oxcal 4.3 (references can be found in Appendix A.1)

Site Name	Type/Size	Orientation	Context	Date cal BC (95.4%)	Lab reference	reference
Avebury	1D1B4E c.350m	N, S, E, W	First ditch fill	3032-2784	HAR-1050	
Coneybury Henge	1D1B1E C.45m	NE	primary ditch fill	3075-2491	OxA-1408	Richards 1990
Ferrybridge (Yorkshire)	2D1B2E c.200m	NE-SW	Hearth sealed beneath bank (TPQ)	3355-2880	AA-40923	Roberts 2005
Dorchester II	2D3B0E C.9m (internally)		primary fill	2920-2620	BM-4225N	Harding 2003
Blackhouse Burn 1 (Scotland)	0D1B3E c.300m	SE, S, W	Posthole possibly used for bank revetment (TPQ)	2862-2459	GU-1983	Lelong and Pollard 1998
Devils Quoits (Oxfordshire)	1D1B2E C.120m (internally)	NW-SE	Combined sample from primary ditch fill (TAQ)	2881-2207	HAR-1887	Barclay et al. 2005
				2137-1751	HAR1888	
Wyke Down 1	1D0B1E c.20m (internally)	S	primary henge context	2877-2346	BM-2395	Barrett et al 1991
Dyffryn Lane, Berriew (Wales)	1D1B1E c.50m (internally)	NW	Hearth sealed beneath bank (TPQ)	2835-2346	Beta-223792	Gibson 2010
Durrington Walls (Wiltshire)	1D1B2E c.490m	NW-SE	Primary ditch fill (TAQ)	2836-2140	BM-398	Richards 1990
				2859-2202	BM-399	
				2871-2235	BM-400	
Catholme 1397 (Staffordshire)	1D2B2E c.37m	N-S	Primary ditch fill (TAQ)	2617-2468	OxA-16052	Chapman et al. 2010
				2580-2349	SUERC-11072	
Maumbury Rings	1D1B1E c.105m	NNE	primary henge context	2850-2200	BM-2282N	Harding 2003
Marden	1D1B2E c.530m	N, SE	North entrance	2580--2280	BM-557	Wainwright 1971
Knowlton South (Dorset)	1D1B0E c.250m		Primary ditch fill (TAQ)	2570-2190	BETA-141096	Gale 2012
Forteviot henge 1 (Scotland)	1D1B1E c.65m	NNW	Early silting of ditch (TAQ)	2467-2236	SUERC-23248	Noble and Brophy
Gorsey Bigbury	1D1B1E c.46m	N	primary henge context	2465-2036	BM-1088	ApSimon et al 1976
Woodhenge	1D1B1E c.85m	NE	primary henge context	2340-2010	BM-678	Pollard and Robinson 2007
Milfield North	1D1B2E c.15m	N-S	primary henge context	2410-1970	BM-1150	Harding 1981
Condicote	1D2B?1E c.121m	SW	primary henge context	2430-1896	HAR-3064	Saville 1983
Mount Pleasant (Dorset)	1D1B4E c.370m	N, W, E, SE	Primary silting of ditch (TAQ)	2285-2024	BM-645	Wainwright 1979
				2297-1950	BM-646	

Broomend of Crichie (Scotland)	1D1B2E c.39m	N-S	Buried land beneath bank (TPQ)	1939-1749	SUERC-13988	Bradley 2011b
				2141-1942	SUERC-13986	
				2129-1892	SUERC-13987	
			Posthole in northern entrance	2291-2042	SUERC-13996	
Hill of Tuack (Scotland)	1D1B1E c.7m (internally)	S	Buried land surface (TPQ)	2281-2038	SUERC36752	Bradley 2016
				2139-1957	SUERC-36751	
North Mains I (Scotland)	1D1B2E c.65	E-WSW	Cremation sealed by bank (TAQ)	2196-1921	GrA-24007	
Mile Oak (Sussex)	1D1B2E c.35m	WNW-ESE	Primary silting of ditch (TAQ)	2022-1617	OxA-3153	Rudling 2005
Pullyhour (Scotland)	1D1B1E c.20m	S	Buried land surface (TPQ)	1915-1454	OxA-3257	Bradley 2011b
			Buried land beneath first phase bank	1369-1122	OxA-3257	
Lairg (Scotland)	1D1B1E c.12m	SW	Buried land surface (TPQ)	1601-1261	AA-26223	Bradley 2011b
Reanascreena (Ireland)	1B1B1E c.24m	ENE	Buried land surface (TPQ)	1209-979	GrN-17510	Brien 2004; Bradley 2011b

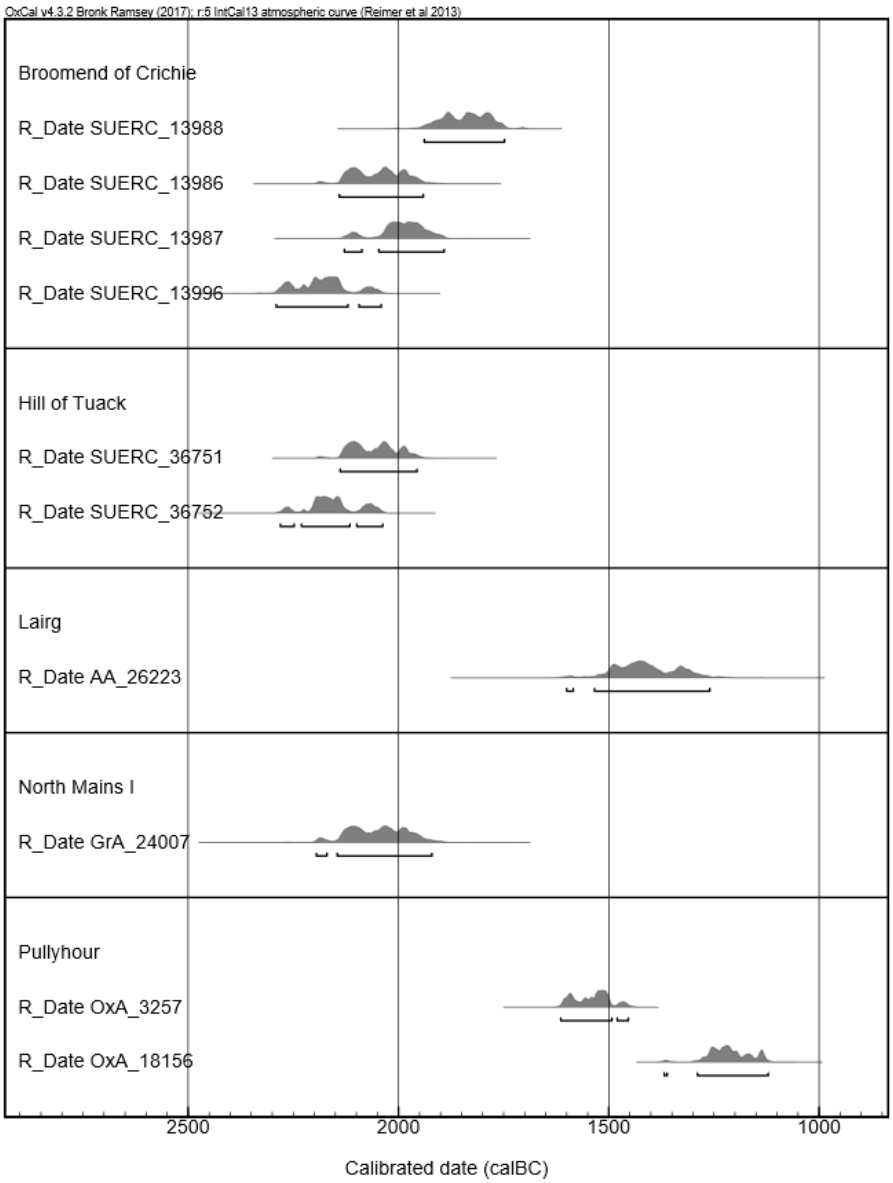


Figure 53: Dates relating to the construction of Scottish henges (processed using OxCal 4.3)

Figure 54 below displays form, size, and dating information for sites which have dates behind the interpretation (information taken from the database). The diagram does show a loose correlation that the Scottish and Northern England sites are later than those in Southern England, however, the large ranges are unhelpful for creating a significant reading of the illustration. Analysis shows a link between sites with a smaller size and a suggested Bronze Age construction date, as well as the use of those sites for the insertion of cremations – possibly due to the similarities in size between existing small henge earthworks and barrows.

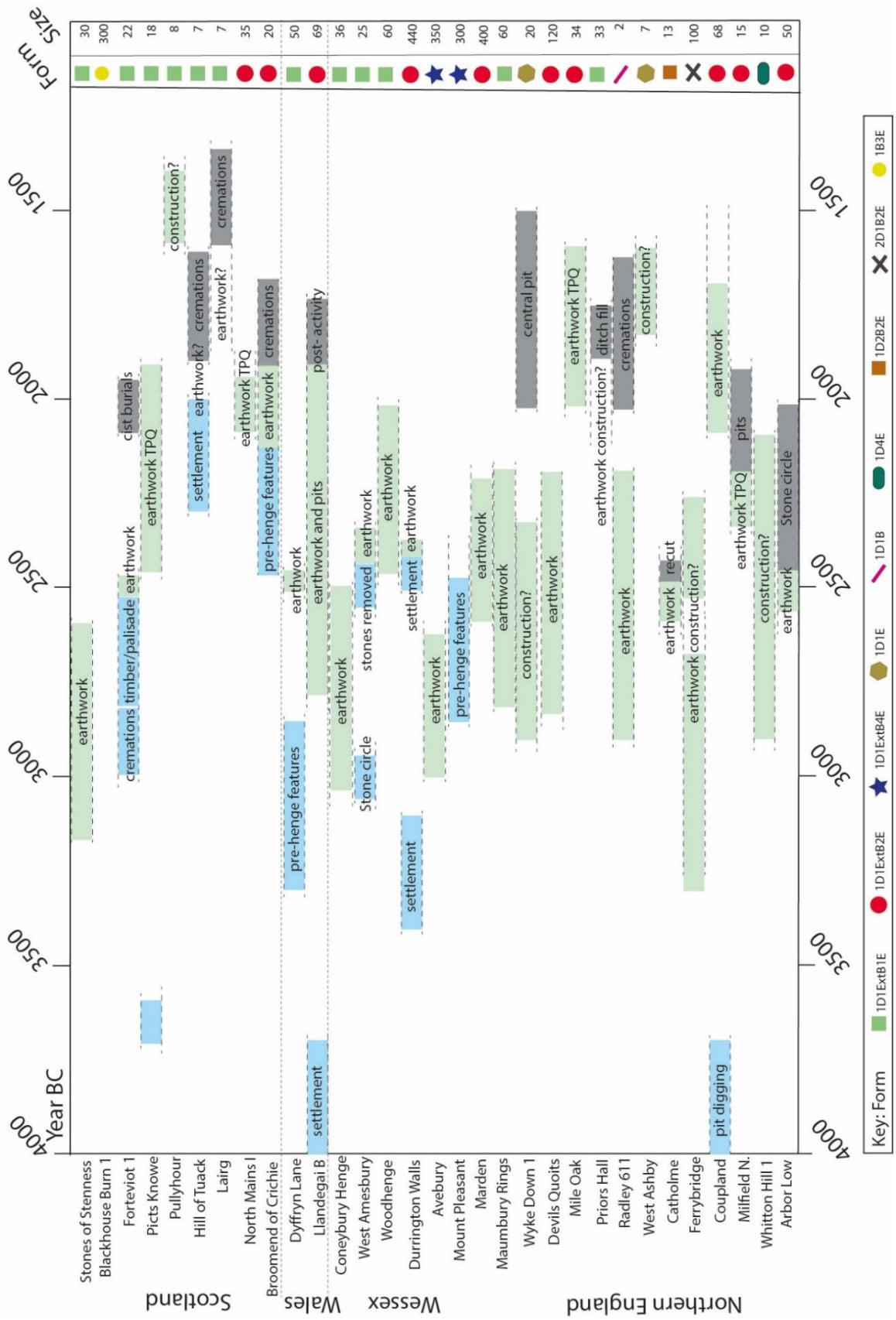


Figure 54: Illustration showing the interpretation of dating evidence for henge sites, with form and size data shown

Applying Lucas' discussion of contemporaneity to *Figure 54*, the relationship between henge monuments in the Wessex region can be considered contemporary ('ibrication' in Lucas 2015: Fig.1) as potential dates overlap. Pre-henge features are shown to predate the earthwork by a significant amount of time at some sites, which suggests the use of space after a hiatus. If dates were available for all sites, then such an analysis would help in identifying regions/areas where earthworks are considered 'contemporary', or whether the succession of sites had clear hiatus'. This would support the significance of memory within the communities constructing these earthworks.

With henge monuments covering the length and breadth of the British Isles, and considering the variation described throughout previous chapters, it is unsurprising that there is a large range of dates available for henge sites. Henge monuments were generally considered to be Late Neolithic and Early Bronze Age monuments, as first suggested by Kendrick in the 1930s; initial rough dating seemed to stem from the increase in circular sites during the Neolithic in Britain following the abandonment of causewayed enclosures. Attempts at dating came through comparisons with early barrows as well as timber and stone circles, European palisade enclosures, and the association with the beginning of the Beaker period (e.g. Clark 1936). This early literature was published before the radiocarbon revolution, which served to dismiss links across Europe, and extend the perceived age of artefacts and sites deeper into the past. Dating for the large sites of Wessex also added weight to the prevailing view of the time, that henges were a Neolithic phenomenon. As dating techniques have evolved and more sites have been investigated, the construction of henge sites has arguably been extended back into the Middle Neolithic (Harding 2003) whilst, at the other end of the timeline, Bradley's (2011b) study has suggested their history could extend into the Late Bronze Age.

Bradley suggests that the chronology of large sites covers more than a thousand years, whilst their construction dates vary – a similar pattern as stone and timber circles (2011b: 181). The smaller sites, he suggests, have an 'even longer currency' with construction of these sites extending into the Middle Neolithic and beyond the Early Bronze Age (ibid). The largest henges in Southern England are currently dated to the Late Neolithic period, which differs from dates from other regions. In the Milfield basin (Northumberland), including the Dryburn enclosure, the sites appear to have been constructed during the Beaker period;

similarly, a period of increased construction appears to happen around 2500-2300 BC, with a series of monuments built at a similar time in Wessex, the Thames and Trent valleys (Bradley 2011b: 181; Parker Pearson *et al.* 2007; Barclay *et al.* 1995; Buteux and Chapman 2009). These dates are interesting given the recent research into aDNA and population from this period – this is discussed further below (*Section 6.6*). Bradley's 2011 *Stages and Screens* describes a number of small enclosures such as Pullyhour as linked to sites like Broomend of Crichie. The dates from these sites range from the Early Bronze Age to Middle Bronze Age, making them comparable to Irish sites (*ibid*).

6.4 Henges as an act of closure

A recurring notion amongst academics researching henge monuments, is the idea of a henge closing an area of importance through the construction of a substantial earthwork (see Bradley 2002; Gibson 2004; Thomas 2010 etc.). Encircling and closing-off sites with an earthwork that limits access and visibility has been suggested to be the final use of a place which had significance before it was monumentalised. The notion of closure works in a limited time period, as sites were often reused, renewed, or adapted in later periods from the Bronze Age through to the early Modern period and, therefore, have a more complex biography.

Sites such as Durrington Walls have highlighted that the earthwork itself was a late addition in that it enclosed an area which had seen significant prior use (see Parker Pearson *et al.* 2008; 2011 etc.), however at other sites there are more ephemeral remnants of earlier activity, such as flint scatters or redeposited finds in later contexts. For sites which had detailed sequencing information/interpretations it appears that approximately half of those sites had evidence of pre-henge activity. Whilst the number of sites with this depth of information is relatively small (due to the lack of dating evidence or limited excavation), it does highlight that in many locations the area was previously used. In light of this, the difficultly we face is understanding how significant that location was, and if 'reuse' in this sense was related to memory/history of known spaces.

In furthering the theme of earthwork construction being the final act of enclosure as part of the monumentalisation of a site, the table below highlights the sites with phasing information in which the earthwork followed earlier activity on the site. As *Table 19* shows, the majority of pre-earthwork evidence is dated to the Mesolithic and Early Neolithic period.

The flint assemblage at several sites has shown that the area was in active use prior to earthwork construction: Mesolithic flint scatters have been found throughout the landscape surrounding the Thornborough complex, whilst microliths have been found at Paddock Hill and Pullyhour, and beneath the bank at West Amesbury. These Mesolithic finds highlight use of the area during this period, but such ephemeral scatters do not necessarily suggest that memory or significance played a part in the decision to construct an earthwork many years later. However, it does suggest that some areas were actively used or travelled through from the Mesolithic into the Neolithic. It has been suggested that West Amesbury and (perhaps) Ringlemere were the site of Mesolithic camps; the density of Mesolithic flint and its positioning on the riverbank suggest a strong use of the West Amesbury site during this period (Allen *et al*. 2016). For sites with a strong sense of continued use during the Mesolithic, and through to the Early Neolithic and beyond, it could be argued that the site became a known place that was respected over time. Arguably, Mesolithic flints are found on most archaeological sites as residual finds and although the presence shows areas still in use, it is difficult to suggest a strong sense of known places. Markers such as features or earthworks (even degraded) support a continued sense of knowledge much more strongly than residual flint scatters, therefore, it is difficult to argue that earthworks deliberately enclosed Mesolithic sites.

Other sites are situated in direct association with other monuments: Thornborough centre is located with reference to a cursus, whilst others have Early Neolithic sites such as barrows within the vicinity (for example, Arbor Low and Avebury). One pattern visible is the association with pits found at sites including Coupland and the Milfield Basin, the Balfarg complex, Dorchester Big Rings, Coneybury Henge and the Llandegai complex. Alongside the evidence of pits there are a number of sites in which the activity has been identified as representing a settlement. Durrington Walls is the largest and most famous, however, house structures and timber structures have also been found at Mount Pleasant, Leadketty and Blackhouse Burn 1. Fewer sites show evidence of Bronze Age activity pre-dating the henge construction, however, Bradley argues that a number of the Scottish sites are built later in the Bronze Age (see above), and further investigation would result in clearer dating evidence. Not every site provides evidence of activity that could be interpreted as predating the ditch or providing a reliable sample of material to securely date periods of use and construction.

Table 19: Information relating to pre-henge activity

Site (country)	Pre-enclosure activity
Arbor Low	Barrow nearby
Picts Knowe	Carinated bowl, flint and a small pit beneath mound
Forteviot henge 1	Cremation cemetery
Maxey Structures 14 + 15	Cursus monument nearby
Copston Magna Henge	Possible ditch circuit
Hanborough 4	Ditch circuit
Maumbury Rings	Earlier features within the sealed soil surface seen in photographs, missed during excavation
Avebury	Possible early phase earthwork
Woodhenge	ENeo small stoneholes and a treethrow
Durrington Walls	ENeo flint and pottery, Neo houses and timber structures
Balfarg Riding School I	ENeo pits
Coupland	ENeo pits
Dorchester Big Rings	ENeo pits, areas of burning
Broomend of Crichie	Evidence of Neo activity, EBA cist and monoliths
Dun ruadh	Occupation evidence
Marden	Evidence of pre-enclosure activity - pottery and flint.
Cairnpapple	Hearths and material culture
Eastcotts Bedford	Barrow nearby and land clearance
Ferrybridge	Barrows in the area and land clearance
Catholme 1397	Linear Sunburst monument
Catterick	LMeso lithics, LNeo-EBA cists and cairn
Mile Oak	LNeo activity seen through fieldwalking
Paddock Hill	Meso and ENeo flints
Pullyhour	Meso flints
Llandegai B	Meso flints, ENeo pits and house
Thornborough N	Meso activity, ENeo cursus nearby
Thornborough centre	Meso activity, ENeo cursus
Thornborough S	Meso activity, ENeo cursus nearby
West Amesbury (Bluestonehenge)	Meso campsite
Bow	Meso flint
Scorton	Meso flints
Ringlemere	Meso flints, stake setting and occupational debris
Bryn Celli Ddu	Meso postholes
Coneybury Henge	ENeo pottery, midden material, pit digging
Norton Henge	MNeo house structures
Ballynahatty	Passage Grave
Dyffryn Lane, Berriew	Peterborough ware pits, stone circle
Ferrybridge Hengiform 162	Pit
Barford A	Pit circle
Stonald Field	ENeo flint, LNeo pit circle
Leadketty	Possible house structures
Priddy S. (circle 1)	Possible stone circle
North Mains I	Pre-henge activity
Mount Pleasant	Settlement
Lairg	Neo settlement
Reanascreena	Stone circle
Hill of Tuack	Stone circle and burials
Blackhouse Burn 1	Hearths and structures
Forteviot henge 2	Timber setting
Brownsbank	Timber setting
Radley 611	Treethrow, possible land clearance
Tye Field, Lawford	Evidence of earlier activity from LNeo finds
Bull Ring	Long barrow nearby

By taking a biographical approach, however, it is possible to see how these sites are used intermittently over time and that the henge was not just the final phase, but elaborated the space with further activity, use and alterations being made throughout later prehistory, and even through to the more recent past (see Younger 2015). Through place-making and continued reuse of a specific site, these sites have continued to be a focus of significant activity despite the potential motive of 'closing' a site with the construction of an earthwork.

6.5 Site Development

6.5 1 Henges and mortuary deposits

Henge monuments are often discussed in the context of being associated with the living and, therefore, not directly related to the deposition of human remains or remembering the dead (for example, see Parker Pearson and Ramilisonina's 1998a interpretation of Durrington Walls/Stonehenge). This certainly holds true for henges in Southern England which rarely contain human remains as opposed to sites in Scotland and Northern England, which are more commonly associated with mortuary deposits. For example, sites in the North and Ireland were first associated with megalithic tombs and interpreted as surrounding arenas (Bradley 1998a; 2011b). In addition, the later henge monuments of Scotland - Broomend of Critchie and North Mains - were constructed around enclosed cremation cemeteries of the Early Bronze Age.

The prominence of barrows and their association with henge monuments also adds depth to the view that they may be associated with the dead. A number of henge earthworks have round barrows incorporated into the circuit or have mounds within the interior. Barrow mounds at Ferrybridge (Yorkshire) and Dorchester Big Rings (Oxfordshire), sit between the earthwork circuits and have been interpreted as pre-dating the henge. A further possible barrow lies at the SW terminal of the centre henge at Thornborough, and a chambered cairn predates the earthwork at Catterick (Yorkshire). The majority of barrows are found within the enclosed area and are generally considered to be a later reuse of the earthwork, or for sites which are considered 'possible' henges, and, as such, the existence of these features often blur the distinction between describing the site as a henge or a barrow.[21] Arbor Low

[21] Sites with barrows in the centre of the site: Dyffryn Lane, Berriew; Ring of Bookan; High Cank; Bingham; Round Hill; Cotton Henge; Lord of the Manor Site 1; Greeanan; Muir of Ord; Ringlemere; Eggardon; Priddy centre S. (circle 2); Knock Beg; Eastcotts Bedford; West Ashby; Lord of the Manor Site 3. Sites with internal off-centre barrows: Priddy N. (circle 4); Marden; Carron; Hunters Lodge; Maidens Grave.

(Derbyshire), Mount Pleasant and the possible henge at Eggardon (Dorset), all have barrow mounds which appear to superimpose on the bank material. Sequencing information also places barrows as being later additions to henges at Ringlemere, whilst cairns were a later reuse of the Litton Cheney (Dorset), Moncreiffe and Weird Law (Scotland) sites.[22]

Human remains are the source of several relevant radiocarbon dates. There is a rough split between remains predating the construction of the earthwork, or dating from deposits that were part of a later use of the earthwork. At North Mains I, the material from a land surface sealed beneath the bank dated to 2196-1921 cal BC (GrA-24007). The Scottish sites Broomend of Crichie, Lairg and Hill of Tuack all have dates stemming from the Bronze Age (*Figure 56* and Table 20); furthermore Cairnpapple was later used as a burial cairn and contained a number of deposits associated with Beakers (see Piggott 1950 and Barclay 1999). In comparison two dates from Durrington Walls date the earlier use of the site. There are a limited number of radiocarbon dates when compared with the number of sites listed within the database. A large number of sites are unexcavated and so the relationship between features and potential barrow mounds and the surrounding earthwork remains unknown.

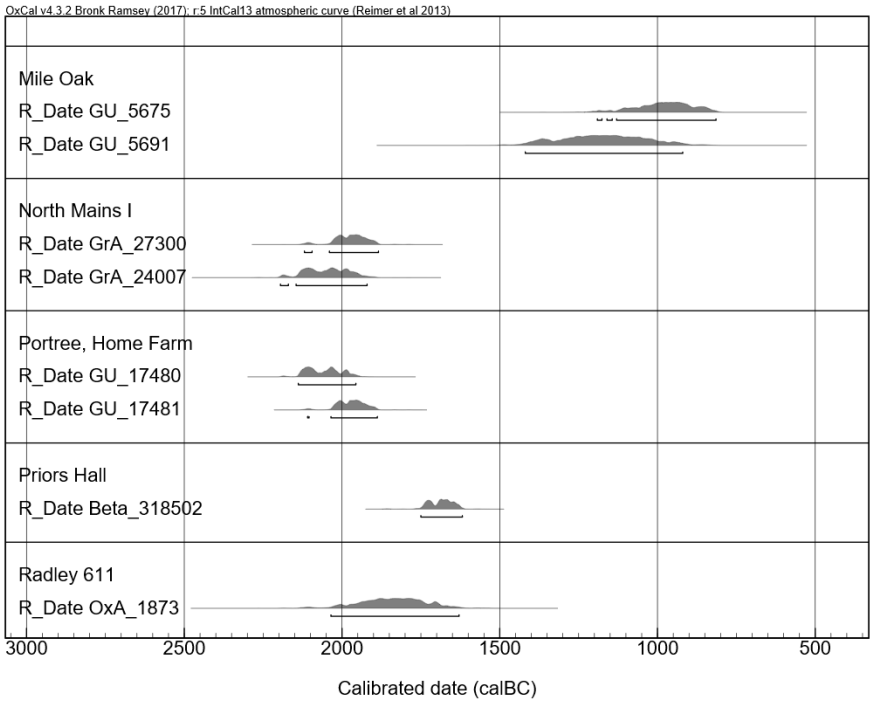


Figure 55: Dates from human remains (processed using oxcal 4.3)

[22] Sequencing information identified barrows as being a later phase of activity at: Arbor Low, Barford D, Ringlemere, Eggardon, Dyffryn Lane, Maxey structures 14&15, Bulford 1, Bulford 2, Bury Farm 2, Cambridge Road, Fengate, Lord of the Manor site 1, Lord of the Manor site 3, Handley.

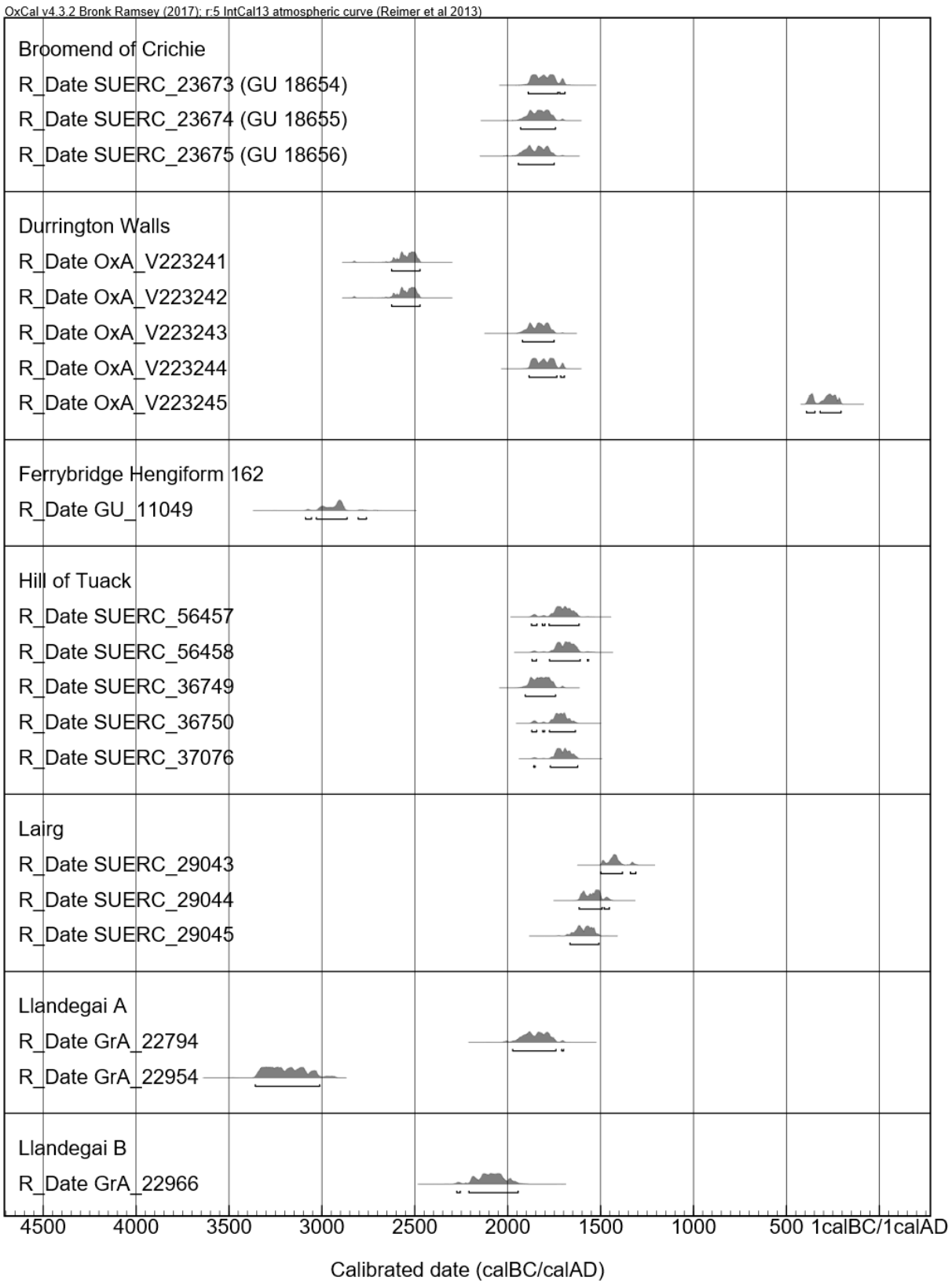


Figure 56: Dates from human remains at henges as seen in table 20 (processed using OxCal 4.3)

Table 20: The dates related to human remains at henge sites (processed using OxCal 4.3)

Site Name	Context	Date cal BC (95.4%)	Lab reference	Relationship
Broomend of Crichie	Cremated remains from urn burials in pits within the interior	1890-1693	SUERC-23673 (GU 18654)	Post-construction use, perhaps not long after?
		1943-1751	SUERC-23675 (GU 18656)	
		1931-1744	SUERC-23674 (GU 18655)	
Dun Ruadh	Human bone from a burial dug into the bank	C.1875-1750	UB-3048	Post-construction
Durrington Walls	Human bone from a posthole within the southern circle	1921-1751	OxA-V-2232-43	Predates construction
		1886-1696	OxA-V-2232-44	
	Human bone	392-207	OxA-V-2232-45	Late post-construction phase
		2625-2473	OxA-V-2232-41	
		2625-2473	OxA-V-2232-42	
Ferrybridge Hengiform 162	Cremated human remains within the ditch	3089-2761	GU-11049	
Forteviot henge 1	Cist inhumation	2141-1956	SUERC-26112	Post-dates the earthwork. Site silted by the time cist was inserted
Hill of Tuack	Cremated bone	1873-1617	SUERC-56457	Predates construction
		1861-1624	SUERC-56458	
	Cremated bone within urn 4	1906-1743	SUERC-36749	
	Cremated bone	1861-1624	SUERC-37076	
	Cremated bone within feature 11	1871-1636	SUERC-36750	
Lairg	unassociated cremation burial from the interior of the enclosure	1500-1311	SUERC-29043	Post-construction
	Cremated bone	1616-1454	SUERC-29044	
	cremated bone of a female in the cordoned urn in Pit 2	1665-1510	SUERC-29045	
Llandegai A	Cremated remains from the interior	3359-3013	GrA-22954	Possibly contemporary
		1974-1700	GrA-22794	Post-construction
Llandegai B	Cremated remains from central pit	2275-1945	GrA-22966	Unclear, possibly contemporary
Mile Oak	Contracted burial in interior pit	1191-815	GU-5675	Post-construction
		1420-921	GU-5691	
North Mains I	Cremation sealed by the bank	2196-1921	GrA-24007	Predates construction
	Human bone	2120-1502	GrA-27300	
Portree, Home Farm	Cremated bone from the ditch	2139-1957	GU-17480	Unclear. Contemporary or redeposited material
		2110-1889	GU-17481	
Priors Hall	Cremated bone	1751-1619	Beta-318502	Post-construction
Radley 611	Cremated bone from an urn burial within the interior	2036-1630	OxA-1873	Post-construction

6.5.2 Timber, stone THEN earth circles?

Henge monuments are just one of a number of circular sites that were prominent features on the British landscape throughout the Late Neolithic and Early Bronze Age period. In addition to earthworks, timber and stone were also utilised in the construction of monumental sites; the significance of timber and stone has been highlighted by scholars such as Parker Pearson and Ramilisonina (1998a). Alex Gibson (2004: 75-76) argued that where timber circles and henges are found together, the timber circle is always the primary construction. The timber circle may not necessarily still be in use, but physical remnants would indicate a previous site respected by the henge builders, such as decaying posts or depressions in the ground surface. This idea of a long-extended sequence of related construction could suggest that some places in the landscape were more potent (Gibson 2004: 80). Gibson has also argued that where timber and stone circles coincide, the stone has always followed the timber structure (2004: 76). For henge sites with stone circles (sometimes referred to as circle-henges), the sequence is often hard to ascertain due to the inorganic nature of the stone construction, although the positioning of the stones in relation to the ditch circuit is often considered to suggest the likelihood of the stones pre- or post-dating the earthwork (Gibson 2004: 78). Dating for stone circles often relies on material deposited within the stone-holes themselves, which can be absent or its relationship uncertain, whilst many henge excavations lack clear dates due to the nature of material which accumulates in the ditches over time (*ibid*). In comparison, timber circles and other structures are often more likely to provide good dating material from the remains of the timbers below the ground level. Alongside the long period over which they were probably constructed and used, and the large geographical area they cover, Gibson argues that it is largely impossible to identify a 'meaningful national sequence' for these monuments types (*ibid*).

Of the 163 sites excavated, only 31 were found to have timber circles, whilst 24 had stone circles – only two sites (Balfarg and Avebury) return multiple timber and stone circles. At Balfarg, Mercer (1981) considered the site sequence as timber to stone - but this was considered problematic by Bradley (2011b). Mercer's argument that the posts were graded in height suggests to Bradley that the posts have similar characteristics to stone settings of Chalcolithic and Early Bronze Age Northern Britain, and this would sit well with the dates of the central grave (Bradley 2011b: 98). The presence of Grooved Ware in the postholes

however, is also associated with Late Neolithic dates. This leaves the interpretation open at this site; there are a number of possibilities including that the stone circle predates both the timber circle and henge, or that the Late Neolithic material in the postholes comes from residual material on the surface (Bradley 2011b: 98-99). Furthermore, if we consider henges as acts of 'closing' or redefining a space it suggests that often timber and stone settings predated the earthwork. Indeed, *Table 19* highlights 14 sites at which the henge encloses earlier timber and stone settings.

6.5.3 Recuts and Reuse

The significance of henge monuments is often assessed by highlighting their cleanliness and survival; many sites were kept clean, reused and respected for a long period after their construction, ultimately meaning there are many fine examples of henge sites that survive into the present day (Harding 2003). It is, therefore, important to investigate the process of reuse and maintainence of the earthwork itself; experiments such as the Liverpool 'Ness Henge' (Hill 2009) show how fast earthworks can erode without a level of regular maintainance.

Recutting was described as visible during excavations at 29 sites, the majority of which have a single ditch circuit (this represents c.18% of excavated sites included within this analysis). This is a surprisingly low number of sites exhibiting this activity, however allowances need to be made for excavation technique, damage, site reuse in later periods, and visibility of recuts. Large surviving sites were often excavated during the late 19th and early 20th centuries when there was a keen interest in antiquarian discovery, and subtle differences suggestive of recuts may have been easily overlooked. Furthermore, recuts can be difficult to identify if fills have the same appearance and texture; it is possible that recuts would have removed the initial cut, and previous recuts. With modern excavation techniques it is likely that recutting would be identified if it had occurred on the site. Of those that have recutting identified, the form of the ditch varies between a continuous or a segmented form; similarly the recuts vary between continuous circuits, segments and pits. Six sites were recut with a pit or segments of ditch, whilst eight were identified to have been recut as a continuous circuit of ditch. Regarding phasing, the recutting episodes of ten sites were interpreted by the excavator as being related to the use of the henge/earthwork (broadly catagorised as a non-funerary function); four were interpreted as relating to the reuse or remodelling of a site into a barrow or funerary monument; and the recut at Picts Knowe is associated with

reuse in the centuries AD. It is difficult to associate recuts with finds evidence, however, Grooved Ware was associated with recuts at Wyke Down 1 and Corporation Farm, Abingdon. At the majority of the sites exhibiting reuse, that use included depositing human remains and/or the construction of a barrow: 18 site appeared to have some evidence of a burial function, or were interpreted as becoming a barrow.

Table 21: Details of sites with identified episodes of recutting

Site_No	Site_name	recut associated with henge use	recut associated with later reuse (BA) e.g. barrow	recuts associated with much later reuse e.g. IA or later	recut in pits/ segments	recut of continuous circuit	cremation/ inhumation	Grooved Ware	notes
334	Wyke Down 1				✓		✓	✓	pit circle recuts into pits associated with phase 2
578	Etton Landscape Site 7	✓			✓	✓			series of recuts. **Cremated remains** found in pit dug into the filled ditch
35	Catholme 1397	✓			✓				henge ditch dug connecting a circuit of the pit circles.
572	Bulford 1				✓				later reuse as double **barrow**
138	Stonehenge				✓				recuts in segments in phase 2
569	West Ashby				✓				site remodelled as a barrow
351	Corporation Farm, Abingdon	✓						✓	little information, finds mostly Neo
393	Cambridge Road, Bedford		✓			✓			recuts BA - site reused as a **barrow**. Also a LBA recut of the original henge form, and left to silt up. Later Saxon activity
333	Forteviot henge 2		✓			✓			timber circle later surrounded by a henge before created into a **barrow**
575	Lord of the Manor site 3		✓			✓			recut to create **barrow** mound material
555	Leadketty	✓				✓			2/3 recuts, part of a complex
577	Etton Landscape Site 4					✓			similar to Dorchester type sites. Site includes **burials**
513	Ferrybridge Hengiform 176					✓			very little information. Recut after infilling and stabilisation
108	Moncreiffe					✓			a recut relating to henge phase or the later **cairn** and stone phase,
403	Picts Knowe			✓					recuts relating to AD use of site
123	Paddock Hill		✓						recut relating to use as a BA **barrow**
365	Dyffryn Lane, Berriew	y							prehenge features, and stone circle. recut shown in lower ditch fills. Later reuse as **barrow**

558	Eastcotts Bedford	y							hengiform follows **oval barrow** function. Further later burials added too
74	Hansborough 4	y							**cremated remain**s in external pits, phasing is not clear
330	Lochend/Lock Migdale	y							recutting seen around ditch circuit
338	Pullyhour	y							recut associated with a remodelling of the site
337	Sittingbourne	y							truncated site, recut prior/in EBA
12	Barford A								recut associated with phase 1 pit circle and **cremation**. (2nd phase penannular ditch) multiphase site, possibly funerary in origin, later reused as barrow, compared to Dorchester sites
323	Bury Farm 1								backfilled and recut numerous times
51	Dorchester I								internal pit circle with **cremations**, maybe always funerary?
80	Kings Newnham								**probable barrow**, little info but one recut at least noted
250	Litton Cheney								**cremation** deposits in pits, and cairn
571	Lord of the Manor site 1								recut over different phases. two later ditch circuits relating to use as a **barrow**
356	Northfield Farm, Long Wittenham								potential ploughed out **barrow**, little phasing evidence

6.6 Summary

This chapter has highlighted several aspects and limitations of dating henge monuments. Pre-henge activity appears to date to the early Neolithic and show evidence of Mesolithic activity within the flint scatters. The northern sites appear to show a long-lasting association with the dead, with Bronze Age earthworks surrounding burial areas at Broomend of Critchie in Scotland, amongst others. Dates relating to burial events in Scotland generally peak after 2200 BC, and many of which predate the construction of the surrounding earthwork (see *Table 20*). In contrast, some of the earliest remains appear at henge sites in southern England, and 'formative' henge monuments such as those at Llandegai.

Also highlighted, has been a variation in the use and individual site history across this broad category of monument. These patterns and variations will be considered further in the following chapter (*Chapter 7*). One of the main limitations is the number of accurate radiocarbon dates available for dating henge monuments and their features. This is a problem that can only be solved through further excavation and the careful collection of samples, even so it is still difficult to pinpoint periods of construction and use.

Whilst this chapter has shown that dates for henge construction vary across a wide time span, it has been suggested that the sites in Scotland generally tend to be later in date than those in southern England (see *Table 18*). In general, more dates would be needed to comment on henges across Britain as a whole. The forms for those sites which provide dates for construction (overall) suggest a variation in shape and size but that the Scottish sites with smaller diameters provide the latest dates, supporting Bradley's (2011) argument. For sites which have provided enough sequential evidence to support an interpretation of site development, *Table 19* highlights the variety of pre-henge activity found through excavation; such pre-enclosure features include ephemeral traces of Mesolithic and Neolithic occupation, through the settlement evidence and burial deposits. *Figure 54* shows a significant hiatus between dated pre-henge activities and henge construction, suggesting the significance of memory, or markers in the landscape that attest to previous site use. The chronology of construction and use discussed above allows an overall discussion on henge sites and construction. Site sequences are invaluable for discussing individual site biographies and are useful in showing the association between enclosing earthwork and pre-henge activities. Despite this trend, it is difficult to argue for patterns and associations between activity and chronology based upon the limited dating evidence we have for such a large number of sites.

Section 6.3 highlights the significant number of sites dated to the Beaker period (c.2500-1700 BC), with over half of the construction dates within *Table 18* falling within this period. Recent research has focused on tracing ancient DNA and ancestry surrounding the spread of Beaker pottery in Western Europe. The Bell Beaker was a new style of pottery that is well-known from examples found within a funerary context and associated with a variety of grave goods. Debate has focused on whether the spread of the Beaker 'package' was a result of migration, or the movement of ideas and influence (e.g. Linden 2007; Parker Pearson et al. 2016). A study of 400 individuals across Europe dating to the Neolithic, Chalcolithic and Bronze Age has suggested that the spread of Beaker pottery and associated artefacts coincides with a change in aDNA results, particularly in relation to Britain (Olalde *et al.* 2018). Genetic signals of Neolithic individuals were compared with those from the Chalcolithic and Bronze Age period and showed a marked difference in results. Results suggested a strong link between Beaker-related individuals in Southern Britain and the Netherlands suggesting both groups derived from the same ancient population (Olalde *et al.*

2018: 193). This study has arguably shown that the spread of Beaker pottery and grave goods coincided with a phase of migration that ultimately transformed the genetic demographic of Britain (Olalde *et al.* 2018: 194). This suggests that a proportion of the population were from mainland Europe, where there are arguably no henge monuments. What role do henge monuments play during the Beaker period? Are henges from this period harking back to Later Neolithic traditions of the indigenous, or does the shape and style make sense in a Beaker world view? Whilst sites in Southern Britain are dated to the Later Neolithic, sites from Northern England and Scotland appear slightly later, whilst Bradley (2011) has even argued for Middle Bronze Age henge sites in Scotland. Further dating is required to accurately date the majority of henge sites, which requires dating to be a main aim of any future excavations.

Henges were constructed over a lengthy period of time, with construction in Northern Scotland continuing into the Middle Bronze Age; dates have highlighted the range of dates for construction, and the association of construction with pre-henge activities. Whilst the majority of sites within the catalogue are undated, it is possible to tentatively take these dates forward and suggest some overarching narratives based on case studies in the following chapter.

Chapter 7 – Discussion: Pattern and Diversity

7.1 Introduction

Previous chapters have explored the patterns and variation across a broad range of henge monuments; *Chapter 5* reviewed the data on a broad scale, whilst in *Chapter 6* the focus was on dating specific moments in time. As *Chapter 6* highlights, and as Alex Gibson has argued (2010: 246):

> '*The chronology of circles of stone and timber and of henges is still by no means clear and site sequences and narratives may vary from site to site: there need be no universal model.*'

The analysis in the previous chapters have shown that such a clear picture is simply an unrealistic prospect to achieve in light of the wide variation present within this group of sites. Focus has recently moved away from the morphology of henge sites towards appreciation for the individual biographies of archaeological sites and places; Rebecca Younger (2015) has written a number of site biographies and highlighted the importance of memory, and this will be discussed further below. This chapter aims to discuss the distinctive histories of specific sites, alongside general commonalities across sites and regions, by discussing biographical interpretations within the context of regional similarities. Through detailed examples viewed through a biographical lens, this chapter highlights the importance of these spaces, and of enclosing space, whilst discussing the use of sites and the significance of construction.

This chapter discusses the pan-regional similarities and differences within the corpus of sites, before focusing on regional study areas. The regional study areas highlight monuments which have a similar form, date and/or use history within a small localised area, as well as any significant differences between sites within close proximity; this assesses the validity of 'types' at a localised scale. This chapter will argue that larger notions of type are hard to distinguish, but that a number or regional and chronological patterns do support the idea of henge 'types'. The chapter will then seek to explore larger themes, including the association of henges with water and routeways, the presence of pre-henge features and post-henge uses and discusses the distribution of henges among a number of related sites and material culture. It will be argued that whilst there are larger thematic similarities at a number of sites and monument complexes, the use and life-history of individual sites demonstrates the significance of the earthwork after completion, and how this use differs at each site.

7.2 Pan-regional comparisons

Figure 23 and *Figure 24* (*Chapter 5*) highlight the predominance of the single ditch and external bank with one or two entrances. As *Figure 57* below shows, these sites are distributed across the British Isles and do not show a regional preference, but do, however, indicate areas where the sites cluster (clusters are discussed in *Section 5.5.4*).

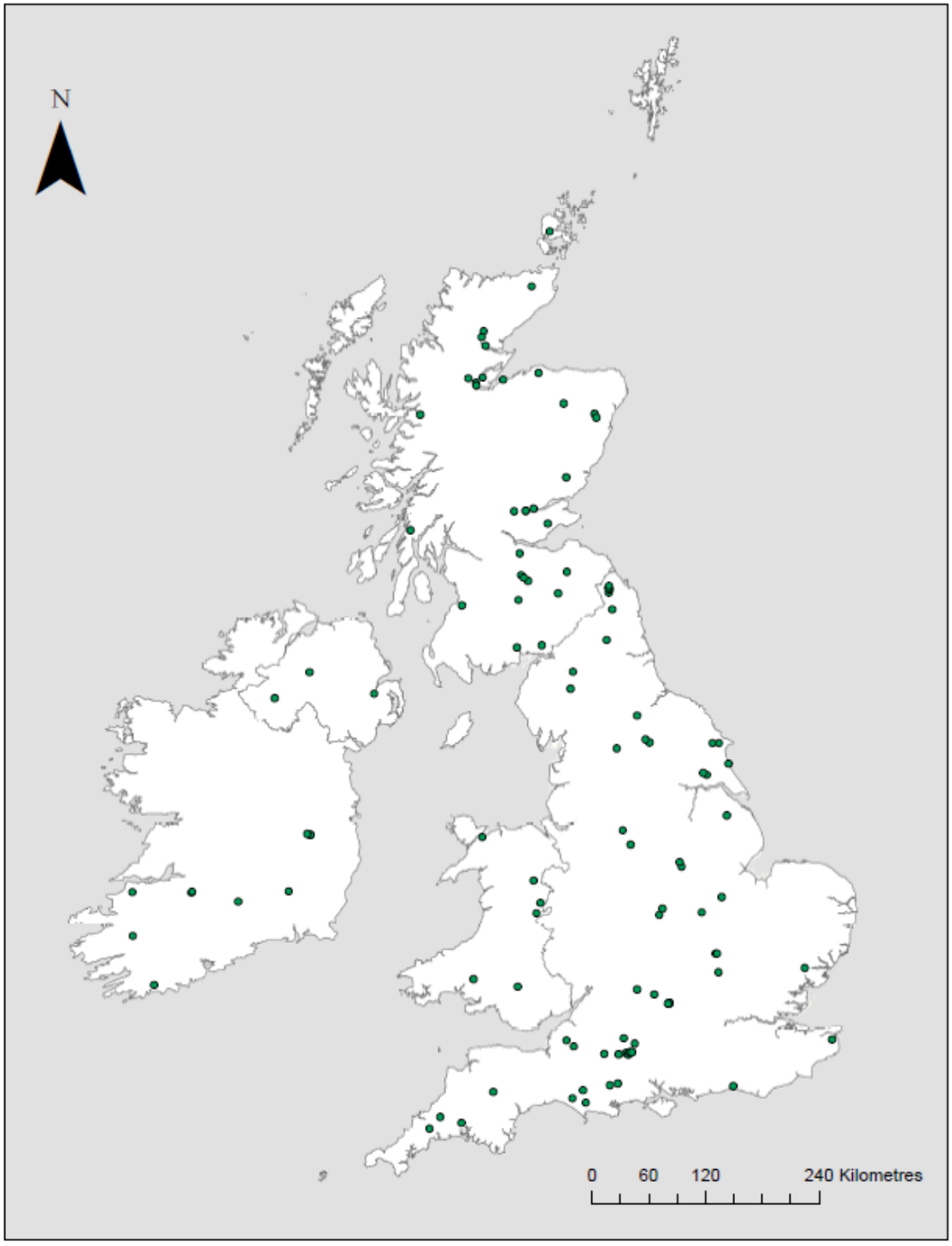


Figure 57: Distribution of 1 ditch, 1 external bank and 1/2 entrance sites

If these traditional forms are compared with sites which have multiple ditch circuits, there is an area of overlap, however, these sites are concentrated in England and Wales, with few or no examples found in Ireland and Scotland (see *Figure 58*). Within this group of multi-circuit sites are the repeated form of the Thornborough henges and the surrounding sites in Yorkshire (discussed in detail below), however there are a number of other sites within central/southern England which have been considered hengiforms in previous literature, or multiphase sites which need further investigation.

Sites such as Barford A and Dorchester Site 2 sit within monument complexes that include numerous enclosed sites which have been considered henge or hengiform monuments; both these sites have three circuits of banks and ditches, each of which differs in form and are interpreted as belonging to a different phase of site use. The Barford and Dorchester monument complexes are comparable, with Oswald (1969) describing them as henges of 'Dorchester type'. A further three ditch circuit sites can be found at Dorchester XI, with an interior of c.15m surrounded by three irregular ditch circuits, representing three phases of activity, which appeared to have been deliberately backfilled soon after construction. Lechlade and Thornhaugh also have multiple ditch circuits, and both appear to have an internal broad ditch with two further irregular ditch circuits enclosing the site. Lechlade is a small site (c.34m external diameter) and has a single NE entrance in the inner ditch, whilst the surrounding outer two rings are unbroken. Thornhaugh has two entrances aligned NW-SE and the surrounding ditches are thinner circuits, suggesting a different phase of activity.

The Yorkshire sites at Thornborough share a form with nearby Hutton Moor, Ferrybridge and the Threshfield sites (discussed below in *Section 7.3.3*), with two ditches accompanied by a single bank; further sites with the same form include Condicote, Arminghall, Dorchester Big Rings and Cotton Henge. Whilst Condicote is partially surviving, no known entrance has been uncovered, though it is argued to have been in the southern section of the earthwork. The site at Condicote is c.120m in diameter and is considered comparable to the Thornborough complex. Dorchester Big Rings is another site which has a similar form to the Thornborough complex, with two ditches and central bank and two opposed entrances. The site is a similar size (125m internally) to the Thornborough sites but both ditches are of a somewhat uniform size and width (*Figure 59*) in comparison to the irregular outer ditch of the Thornborough sites (see *Figure 70*Figure 48).

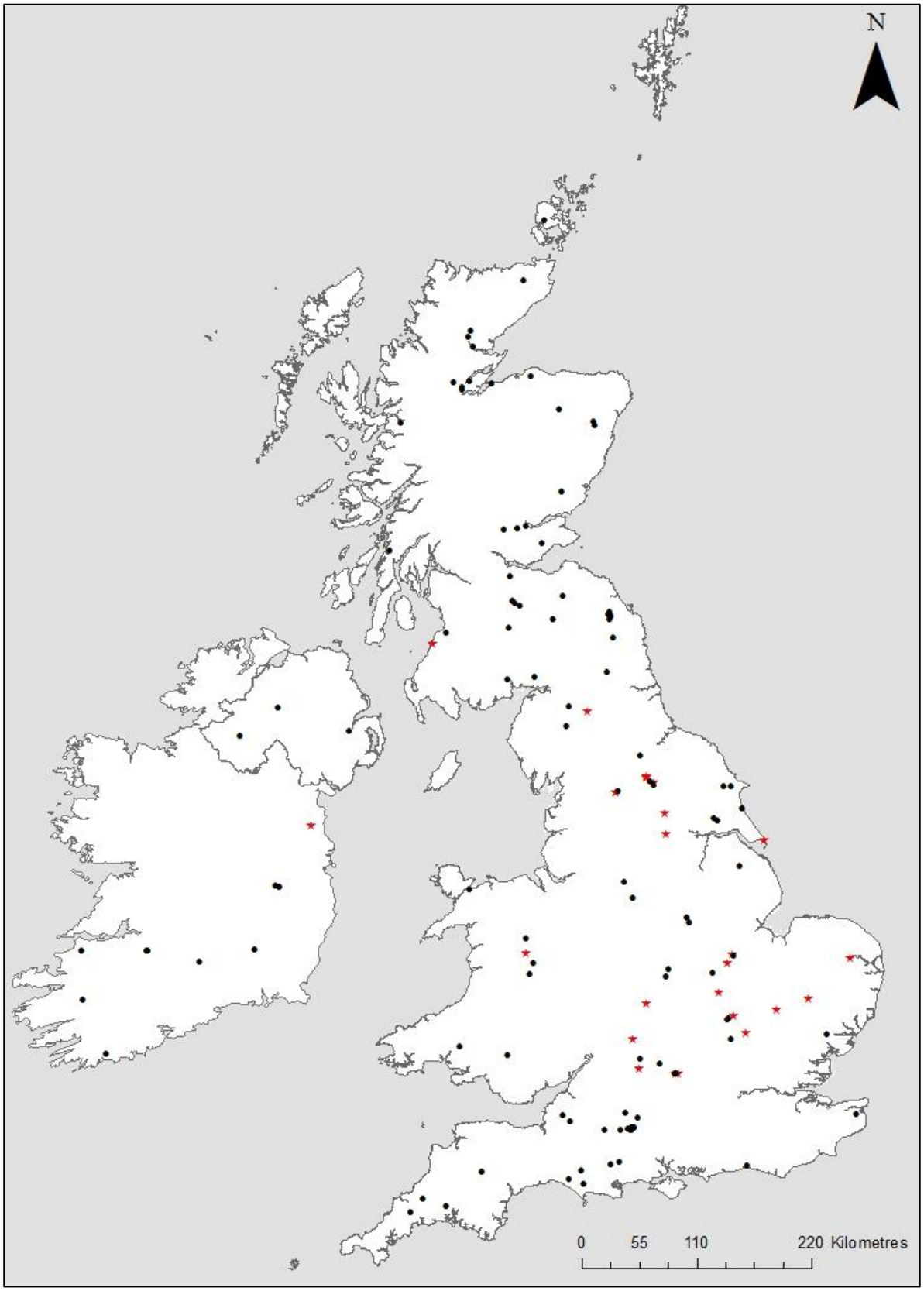


Figure 58: Map showing the distribution of multi-ditch sites (red) alongside those with a traditional henge form (black)

Of the multicircuit ditched sites, those in Yorkshire share similarities in form and size, and are discussed in detail in the following regional discussion (*Section 7.3*), whilst the others differ in a number of characteristics. Sites such as those within the Barford and Dorchester complexes suggest multiple phases of enclosure and not all relating to henge use. Sites such as Lechlade and Thornhaugh have internal circuits with broad ditches, which resemble the traditional form of a henge, with external irregular circuits that appear to suggest a reuse of the site due to the lack of causeways. In fact, given their particular characteristics, sites with multiple ditches would be a good group to focus on in a further study, in order to better understand the relationship between ditches. In particular, when is the enclosing of a site with a further ditch suggestive of a change in use (as a barrow for example), and when are multiple ditches all related to the creation of a henge (as suggested for Thornborough)?

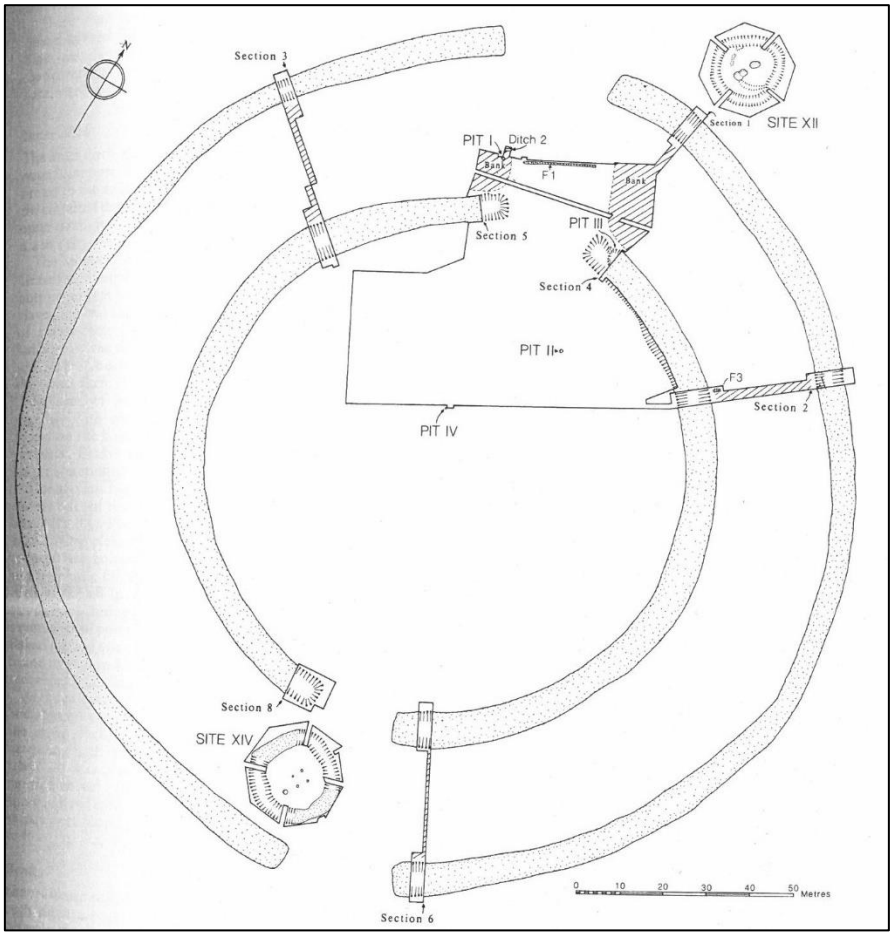


Figure 59: Plan of Dorchester Big Rings (Whittle et. al. 1992: fig.26)

The Cumbrian site of Mayburgh is an unusual henge site consisting of a bank made of stone and water-worn pebbles, with little evidence of an accompanying ditch; it is often compared to Irish henge sites and embanked enclosures, however there are other embanked sites in

the British Isles that share similarities to Mayburgh. The map below shows the distribution of bank-only sites within the catalogue; there is a clear distribution associated with the Irish coastline, the western coast of England and Wales, and a few sites in Northern England and Scotland; there are no comparable sites in southern Britain (*Figure 60*). The Blackhouse Burn sites are the most northern embanked sites within the dataset, and consist of a large irregular enclosure c.300m in diameter (site 1) with a small 60m circular enclosure (site 2) sitting just outside the larger site. Blackhouse Burn 1 surrounds the watercourse of the Blackhouse Burn, which flows from the enclosure. Both sites consist of stone banks, with evidence of timber revetment and straight sections within the bank. Timber from the revetment of Blackhouse Burn 1 dates the construction to 2863-2404 cal BC (GU-1983), and there is evidence of structures and hearths sealed beneath sections of the bank (Lelong and Pollard 1998). Newbridge, near the Scottish coast, survives as a partial bank but requires further investigation to ascertain its true form. Mayburgh is a circular bank enclosing an area c.90m in diameter, and has a single entrance aligned towards the river; Mayburgh is part of a small cluster of sites including King Arthur's Round Table, which has a typical single bank and ditch circuit. Catterick in Yorkshire is a broad banked site constructed of water worn pebbles and stone, similar to that of Mayburgh. The site was partially excavated and has a long history of reuse; the bank overlays and incorporates a cairn within its circuit. Bielby is a further site in Yorkshire and similarly survives as a bank but is currently uninvestigated.

There is a cluster of single bank sites in the western-most tip of Wales (also discussed in *Section 5.5.4,* cluster 21), which is the only concentrated cluster visible of single bank sites (*Figure 60*). The four sites in this cluster are all embanked sites which have seen little investigation; Llainbanal appears to have two possible entrances, but Gwuan Terrace, Pantymenyn and Penlan Earthwork do not have clear entrances in the surviving and denuded earthworks. Pantymenyn has a hollowed interior and sits on a hilltop within the vicinity of Meini-Gwyr as well as a number of barrows and standing stones. Llainbanal is surrounded by earthworks related to a probable settlement and Penlan Earthwork has also been considered a barrow or post-medieval site, due to the similarities with windmill sites; these sites, therefore, are often listed with uncertainty and are difficult to analyse without further archaeological investigation. The site of Black Gate Enclosure lies further inland and survives as a slight earthwork c.40m in diameter with two entrances and a N-S alignment. The earthwork lies on sloping ground in a central position between two river sources (the

Mule and Ithon), and an extensive Bronze Age barrow cemetery (Crugyn Bank); the site, therefore, lies in a significant landscape and could benefit from further investigation. The single banked oval site in Devon shares a similar gently sloping location to some of the other sites described above and lies in the vicinity of the ritual monument complex of Great Stannon Newtake, leading to its classification as a henge monument.

Figure 60: Distribution of single bank sites (0D1B)

Of the embanked enclosures of Ireland, Knock Beg is c.41m in diameter with a single entrance to the SE, and there are traces of a low oval mound. Cong has a stone circle set into the stone bank with a number of other stone circles in the landscape; Castleruddery is similar in form. Site O in the Brú na Bóinne complex is a large enclosure c.134m in diameter with two entrances and lies close to the river. Monknewtown is a similar size at 110m in diameter and when excavated the interior was found to be scooped; burials and pits were uncovered in the interior which Sweetman (1976) considered to be contemporary with the earthwork. Whilst there are comparable sites in Mayburgh, Catterick and some of the embanked enclosures of Ireland, there is a lack of information for the remaining sites within this form; only 4 of 17 sites have been excavated (23%), leaving uncertainty surrounding the nature of the form, use and dates of the enclosures. The clustering of sites on the tip of Wales supports the notion of strong links between Ireland and the coast of Wales and Northern England, however further evidence dating the Welsh sites would be required to extend this link.

Figure 61: Site distribution maps. LEFT: sites with cairns; RIGHT: sites with barrows.

The presence of features at henge sites creates similar widespread distributions, however the presence of hearths and house structures do have a generally southern regional clustering (discussed below in *Section 7.4.1*), whilst henges with barrow mounds tend to have a different distribution to those with cairns (*Figure 61*). Of the sites with barrows, 90% are found at sites with a single ditch circuit and the majority are found within the interior or as part of the earthwork of henge sites, although sequencing information varies (see *Table 19*; *Section 6.5.1*). Whilst sites with barrows appear to cluster in Southern Britain, the distribution of henge sites with cairns tend to be predominantly in Scotland and Northern Britain (*Figure 61*). The sites with cairns have a similar range of forms, with the majority having a typical single bank and ditch circuit.

Henge sites have been looked at as a broad group in previous chapters, with the intention of finding patterns within the range of data. Some patterns were observed in *Chapter 5*, such as the prominence of sites with a broad ditch to bank ratio, the general association between henges and water; and Scottish henge sites providing later dates than those in southern England in *Chapter 6*. Regional similarities can be seen in some cases but there is also wide variation within the clusters of sites analysed (see *Section 5.5.4*). Based on the analysis within this thesis, there does appear to be a wide distribution of sites with single ditch and bank circuits and 1-2 entrances, with a broad ditch and bank ratio, with wider cross-regional similarities between sites with multiple ditches.

Whilst there is no clear evidence of multiple distinct regional groupings, this section has highlighted the widespread nature of single bank and ditch forms and has suggested embanked enclosures are the result of communication links between Ireland and mainland Britain, focused particularly within Northern England and West Wales. Furthermore, multicircuit sites such as the Yorkshire cluster suggest small pockets of form repetition, however the uncertainty of a number of multicircuit sites masks this picture on the larger scale. Further excavation is needed to fully understand these monuments: approximately 63% of single ditch and bank circuits with one or two entrances have seen some excavation, whereas those forms which differ from the traditional henge form range between 0-40% excavated (see *Table 6*). Whilst there is a general type described above, based upon form alone, to find specific regional types requires a closer look at clusters of sites, taking into account the available dating evidence.

7.3 Regional patterns and variation

Complexes should be regarded as documenting a long-term process of development and use, physically demonstrating the long-term use and construction of monuments (Harding 2013: 5). In this regard, such complexes have been regarded in terms of a historical narrative, as discussed in *Chapter 3*. There are several sites which exhibit a clustering of henges and related monuments, both contemporary and from later reuse. Complexes such as Thornborough suggest a preconceived intention of the ultimate layout of the sites (see *Section 7.3.3* below); whilst other clusters suggest very different forms and process of construction (e.g., the Penrith henges). This section will assess similarities and variation of form, use and landscape location within regions, in order to consider whether or not there are 'regional types', and - if there are - how frequently those types appeared at regional scales.

7.3.1 'Atypical' henges

Monument complexes often described as 'atypical' or 'formative' include sites with segmented ditch circuits, or with a bank circuit running internal to the ditch (Harding 2003); such sites have often been considered as predecessors to the henge. Whilst segmented ditch circuit sites are found throughout the British Isles (see *Section 5.5.4*), there are regions and complexes in which there are a concentration of sites that sit outside the traditional form of a henge.

The Mendip Plateau

Situated on the raised Mendip plateau in Somerset is the Priddy Circle monument complex, as well as Hunters Lodge and Gorsey Bigbury (see *Figure 52*). The plateau is relatively flat with a slight slope and has several springs. Whilst Hunters Lodge and Gorsey Bigbury flank the Priddy complex, they both have a similar form and size that differs from those at Priddy (see *Section 5.5.4*). Priddy circles 1-4 have a single ditch circuit with a bank on the interior and are all of a similar size (c. 180-190m in diameter, see *Figure 62*). Typically considered as henge-related, circle 1 was investigated by the Taylor brothers and Tratman (1967), who described a sequence of construction including a post-circle phase. Tratman described circle 1 (and due to the uniformity of the other three circles, he extended this to all the enclosures) as a henge monument, but notes that its unusual form was comparable with Stonehenge (1967: 112). In 2008, the original trench was reopened for further investigation which provided a new interpretation of the sequence and provided material for dating

(Lewis and Mullen 2011). Dates provided by oak heartwood charcoal found within the ditch suggest that the ditch predated c.2870 cal BC, although it is noted that the possibility of residuality and the 'old wood' effect should be considered (*ibid*: 155). The lithic assemblage from the upper fill of the ditch was predominantly Late Neolithic, with residual Mesolithic material also found. The bank was revealed to have been formed from two concentric circles of timber posts with the upcast from the postholes being deposited between them. A second phase was the construction of a turf and stone bank, whilst a third identifiable phase involved the removal of the posts and construction of a clay bank, either side of the turf core (Lewis and Mullen 2011: 158). The ditch was loosely dated to the third phase of bank construction (*ibid*).

The date and the 'atypical' form suggest an enclosure belonging to the beginning of the third millennium BC and the Late Neolithic; its form is comparable to Stonehenge, Llandegai A and Walton Court (Lewis and Mullen 2011: 156). The earthworks at Stonehenge and Llandegai A are associated with the deposition of cremated human bones, however, no evidence of this was found during the excavations of Priddy circle 1. The construction of the bank has been compared to that of Blackhouse Burn (Scotland), however Blackhouse Burn was considered comparable to the large henges of Durrington Walls and Avebury by its excavators (Lelong and Pollard 1998). Further investigation would be needed to assess the possibility of internal features at the Priddy circles. A gap between circles 3 and 4 was suggested to be the possible location of a 5th circle by Tratman (1967), whilst Lewis has suggested an alternate view that this was the position of a pre-existing significant routeway in the Late Mesolithic-Neolithic period (Lewis 2007; Lewis and Mullen 2011: 160). The presence of a routeway and the number of springs and sinkholes suggest that this landscape was significant prior to the construction of these enclosures.

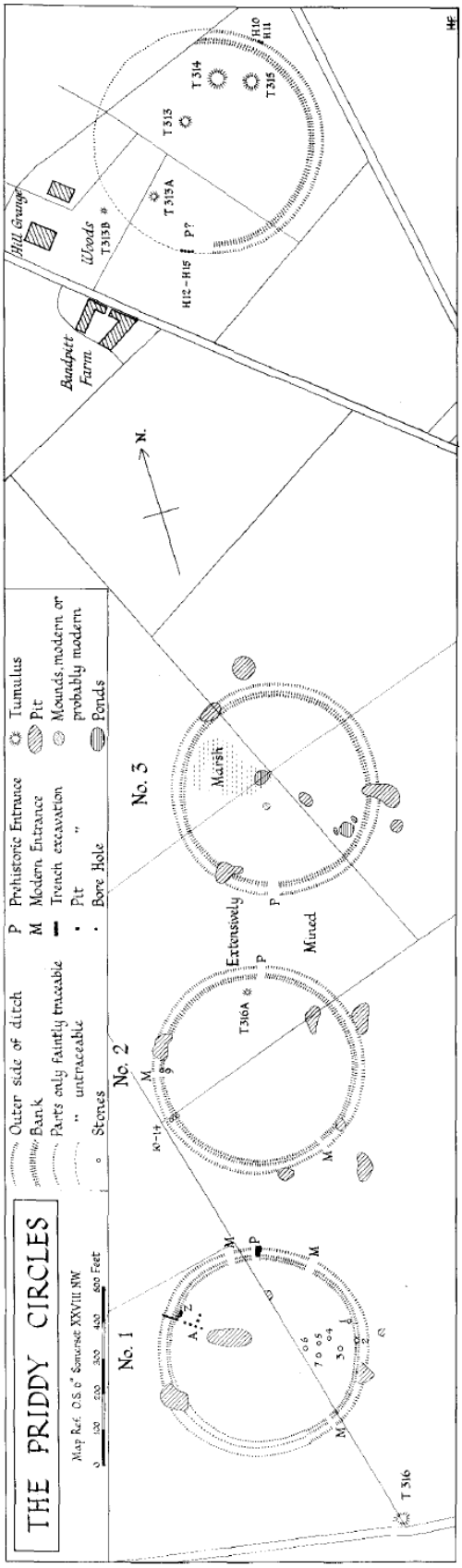


Figure 62: Site plan of the Priddy circles 1-4 (Taylor and Tratman 1956: plate 5A)

Llandegai

The monument complex of Llandegai is situated on the flat summit of a gravel ridge on the Afron plateau (Houlder 1968). The large complex covers an area of 38 acres and is set within a natural amphitheatre. The ridge appears to be an area of focused prior activity, with Late Mesolithic pits containing microliths, a possible decorated pebble, and a house structure dating to the Early Neolithic in the area around henge B (Lynch and Musson 2001: 24-35). There are two enclosures considered to be henges within the complex: henge A, with its substantial earthwork and single entrance, and henge B, which has two opposed entrances and a less substantial ditch (see *Figure 63* below). A small enclosure (E) is referred to as a hengiform, whilst enclosure F was initially considered as a hengiform but has since been reassessed as a multi-phase barrow.

Llandegai A has a broad ditch with a bank running within the interior, enclosing an area c.50m in diameter. The entrance faces south-west and the alignment through the interior appears to link the entrance with features within and just outside of the enclosure. Pits within the interior contained cremated remains dating to the Neolithic (e.g. 3200-3100 cal BC, GrA-22954 from pit FA370) (Musson and Lynch 2001). A small cremation circle sits outside the entrance with dating suggesting that it is contemporary with henge A (Lynch and Musson 2001: Appendix 1).

Henge B lies south of henge A and consists of a double entrance enclosure with a relatively narrow ditch and diameter of c.68m. Entrances were at the north-east and south-west, with the south-west entrance being wider and associated with a large pit containing a cremation just outside the causeway (Lynch 2001: 56). It is assumed that henge B had an external bank due to the position of internal features suggesting that an external bank is more likely (*ibid*: 61). There is no clear dating evidence for the construction of henge B, however, finds indicate a bias towards the Later Neolithic.

Henge A and the associated cremation circle appear to be the earliest monuments of the Llandegai complex, potentially as a religious centre for some 300 years (Musson and Lynch 2001: 55). The presence of cremations at Llandegai A are considered related to an initial use of the enclosure and differs from the traditional view of henges as non-funerary monuments. Henge B has no direct evidence of a bank, and so a clear comparison is difficult. The small double-entranced site E measures c.8m in maximum diameter but provided no

dating evidence. The site and complex are comparable to the monuments at Dorchester and are similarly associated with cursus monuments (see below).

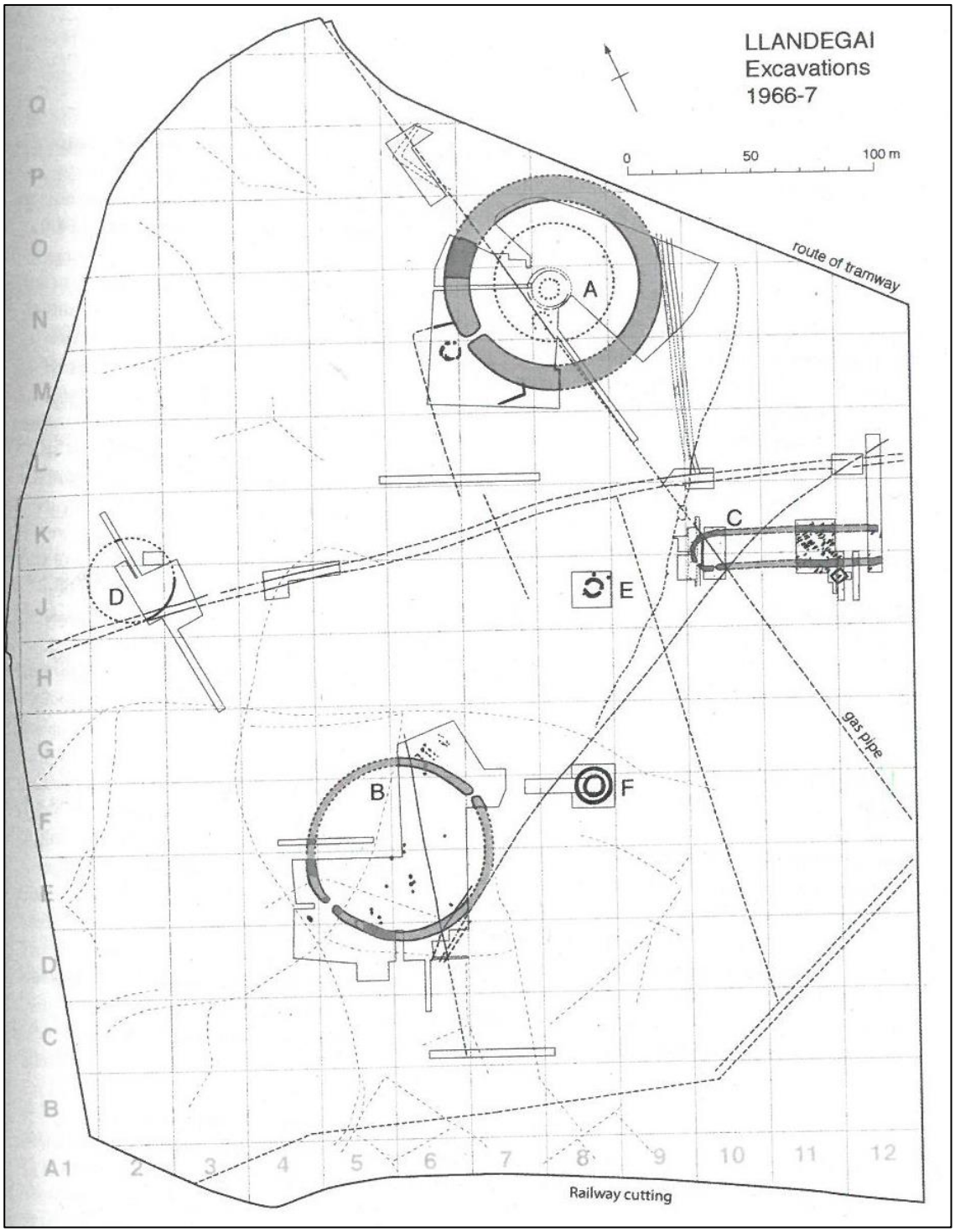


Figure 63: Excavation plan of the Llandegai complex (Lynch and Musson 2001: fig.4)

Dorchester

The Dorchester complex is a large monument complex on a river terrace situated within a prominent bend in the River Thames. Cursus monuments, round barrows, and a number of circular enclosures cover the area (see *Figure 64*).

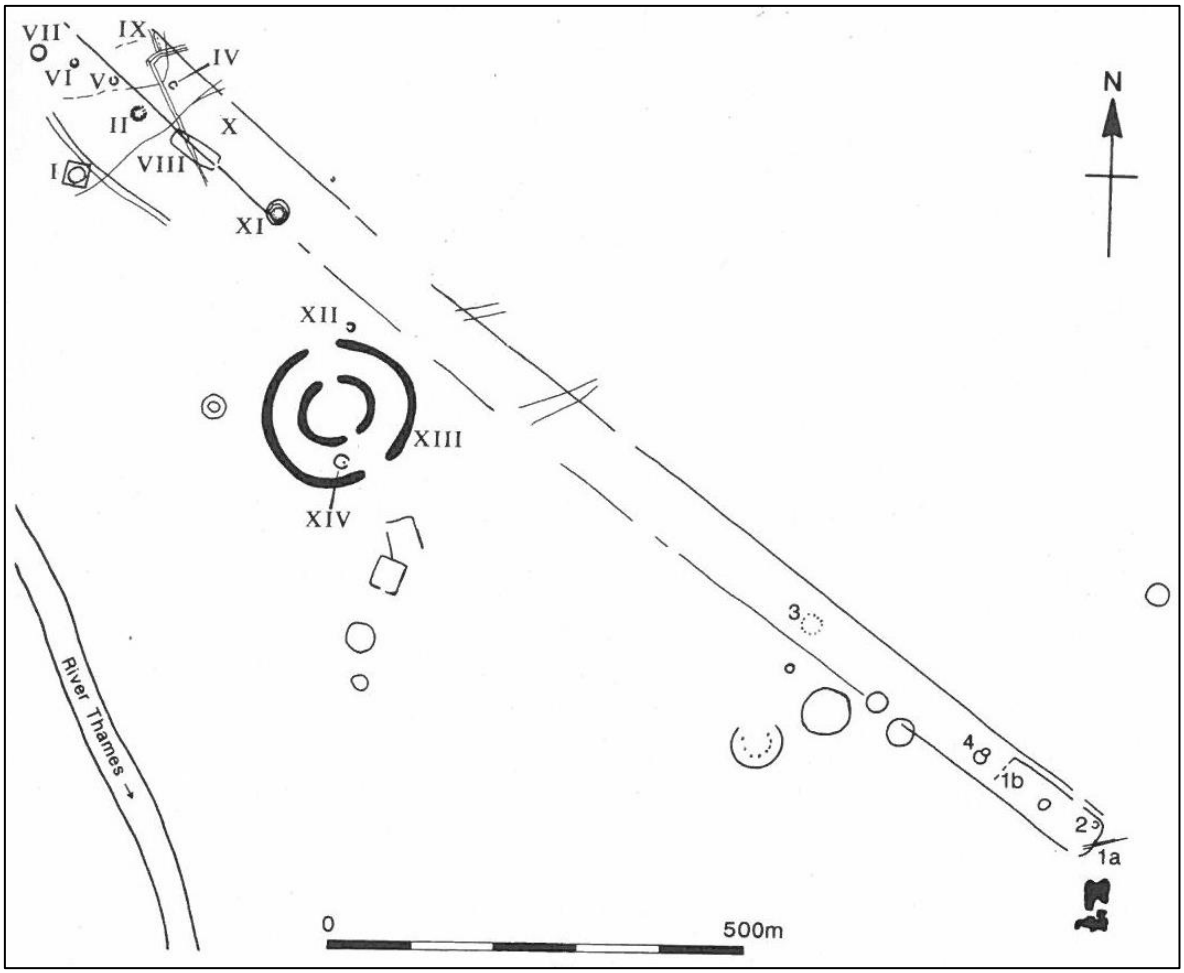


Figure 64: Dorchester complex plan (Whittle et al. 1992: Fig.3)

Dorchester has been bound within the henge literature since Kendrick's initial publication (1932); Atkinson's excavations of the smaller Dorchester sites prompted his reassessment of the henge definition (Atkinson 1951; Atkinson *et al.* 1951; see *Section 2.2* for discussion). The largest enclosure is the double-ditched sites of Dorchester Big Rings, which was the first site to be compared to other henge monuments. The site has narrow ditch circuits and opposing entrances, and is the largest circular earthwork in the complex. Sites IV, V, VI are smaller enclosures consisting of small segmented ditch circuits and are associated with cremation deposits. The large cursus ran c.1.6km ending c.250m from the River Thames, and potentially close to a tributary stream at the opposite end (Bradley and Chambers 1988:

274). Towards each end of the cursus is a concentration of small circular sites, whilst the large Big Rings site was situated roughly proximate to the centre point (*Figure 64).*

A few sites are considered to pre-date the cursus (site XI, VIII and II), which also fall into a clear alignment (Bradley and Chambers 1988: 276-7). The construction of the cursus was a major construction project that appeared to incorporate earlier enclosures at both extremities by altering its course slightly along its length (Bradley and Chambers 1988: 280). The following phase of construction involved the smaller circular enclosures shown above (*Figure 65*); these enclosures had an axis which respected the direction of the existing cursus.

Dorchester IV is a small pit circle with an internal diameter of c.6m, the pits created an irregular circuit and each pit has a small pit/stakehole cut into its base, although there were no visible traces of wood. The presence of an external bank was determined by sediment evidence within the ditch fill. Within the interior were deposits of cremated bone, and 10 such deposits were in the upper fill of the ditch. Dorchester site V is comparable to site IV: a segmented ditch with external bank surrounds an area associated with cremated remains. Site V also has pit/postholes at the base of the ditch segments, and the cremations were free from charcoal, suggesting the remains were burnt and carefully collected elsewhere before being deposited in a small bag or pouch (Atkinson *et al.* 1951). Site VI is also comparable to sites IV and V described above. Atkinson interpreted these sites as being used post-construction for the deposition of curated cremated remains, as the deposits associated with the ditch were added to the site at a time when the ditch had seen some silting. Other sites include multi-phase enclosures, barrows, and the Big Rings henge site. Whilst these hengiform-type smaller enclosures were significant projects and places, used after construction for the deposition of human remains, their placement suggests they drew on the significance of the cursus.

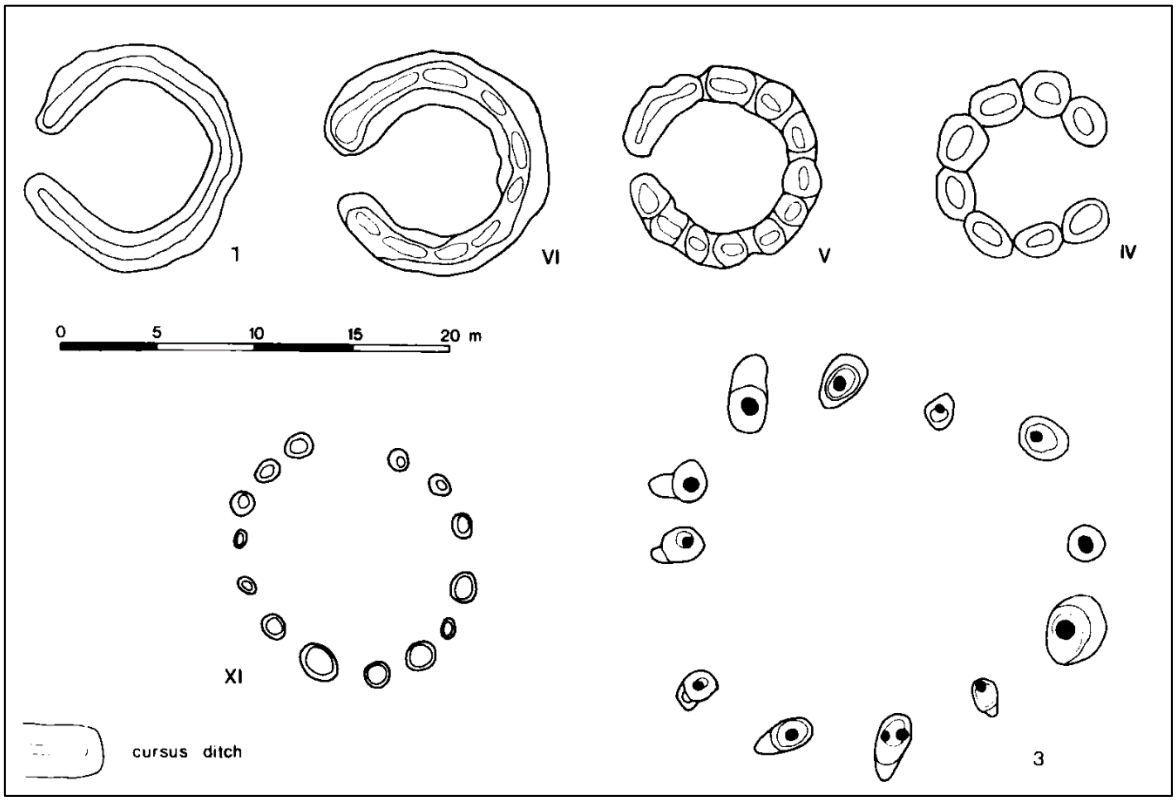


Figure 65: Plans of the small Dorchester sites (Bradley and Chambers 1988: Fig.6)

Summary

Lewis and Mullen suggest that sites such as Priddy circle 1 and Stonehenge are rare examples of an emerging monument class in the early stages of the third millennium BC (2011: 156). Stonehenge is arguably considered to be a cremation cemetery, with the deposition of cremated remains in the concentric ring of pits, known as the Aubrey holes, however, it too was embellished over time into the unique monument we see today. Similarly, Llandegai A was interpreted as being conceived as a single plan of construction along with the pits within the interior and the small cremation circle directly outside of the entrance (Musson and Lynch 2001: 53). Several Dorchester sites are associated with cremations, however Wainwright (1969) has suggested that there is a difference between sites which were initially associated with the deposition of cremated remains at henge sites, and sites whose main function was for burial of the dead (discussed in *Section 3.4.4*). Sites at Etton and Barford have also been considered comparable to those at Dorchester or Llandegai, and Dorchester is one of several similar monument complexes along the River Thames (Whittle *et al.* 1992: 195). Perhaps the development of henge construction needs reassessing with a nuanced view that prioritises the individual examples over how sites do or do not compare to the main group of sites within the henge category. Perhaps those

deemed 'atypical' could be an early form of henge (as suggested by Harding 2003), a regionally specific form, or not henges at all?

The similarities between the Llandegai, Dorchester and Priddy circles does suggest the emergence of a particular form of enclosure at different locations. The similarity between the Priddy circles, however, is not found within the Dorchester complex which exhibits variation in the construction style and form of the earthworks. Similar earthwork complexes are found along the Thames Valley and arguably suggest a focus of related monument construction and activity. The typical henge form with an external bank tends to post-date these early enclosures, but also begin to appear in the Late Neolithic period (see *Chapter 6*) and continue into the Bronze Age (particularly in Scotland). These early and unusual enclosures deserve further investigation, particularly focused on dating and recognising contemporary uses. Focused regional studies on these clusters, particularly those in and around the Thames Valley and associated regions (e.g. Barford, Dorchester), could provide further insight into the strength of a regional trend.

7.3.2 Scotland – the earliest and latest henges?

Neolithic Orkney

Orkney is famous for its surviving prehistoric archaeology and the large stone circles at Stenness and Brodgar are some of the most well-known Neolithic sites in Britain. Situated on a plateau opposite the Ring of Brodgar and part of the unique Orkney monument and settlement complex, the site at Stenness has been considered one of the earliest of its kind (c.3350-2600 cal BC) (Harding 2003: 12). Harding suggests that Stenness is one of a group of early henges and hengiforms including Llandegai A and the Dorchester sites, however it is the first to have the distinctive form of a 'classic' henge (*ibid*).

The earthwork (*Figure 66*) comprises of a rock-cut ditch, with a single entrance to the NW and an external bank. The site was partially excavated in 1973-4 (Ritchie 1976), however the sequence of the site is poorly understood. Rebecca Younger reassessed the excavation report in a biography and highlights important themes through the sequence of events at the site and in comparison with other Scottish henges (2015: 215 - 228). Activity on the promontory begins with fires, within one or two possible hearths in the centre of the area that would later become the henge. The central hearth is square and is a common feature of the Orcadian Neolithic Village at Barnhouse and Scara Brae; a small amount of pottery and

animal bone was found within the hearth and evidence of seaweed used for fuel (Younger 2015: 216). A second hearth was found associated with a timber structure, although there is debate as to what role the structure played in the sequence of site creation (Ritchie 1976; Richards 2005; Younger 2015). Younger argues that the use of fire, and the nearby deposition of fragmented objects, were episodes of place-making and are comparable to pre-henge features described at other sites such as Cairnpapple (2015: 219).

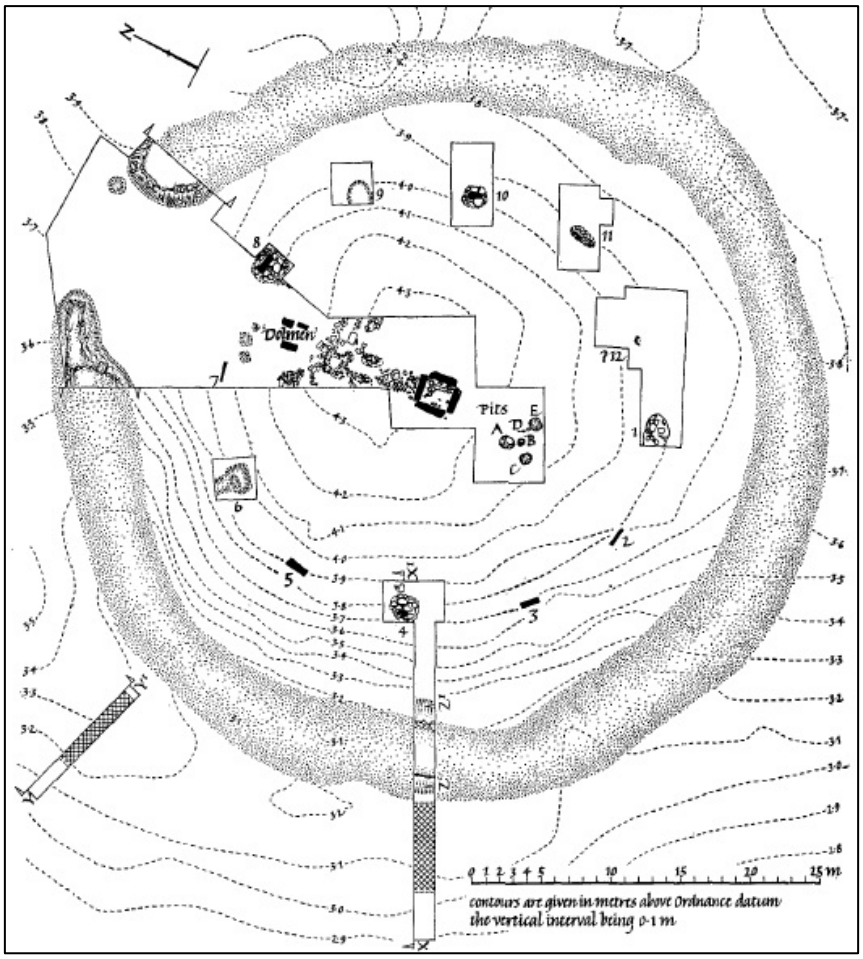


Figure 66: Excavation plan of the Stones of Stenness (Ritchie 1976: fig.2)

At a later stage the hearths were reconstructed, and the site became increasingly monumentalised; Richards argues that the hearth slabs were taken from the nearby settlement and that the hearths were no longer used for fire (Richards 2005: 221-225). The timber structures related to the hearths may be related to this phase of embellishment, whilst the stony material and possible stone holes close to the central hearth were interpreted as a possible stone building by Richards (2005: 222; Younger 2015: 219). The stone circle was constructed encircling the central features using 11-12 stones, which were brought to the site from a quarry a considerable distance away. The transporting of these

large stones would have been quite a difficult task and it is, therefore, likely that the stone circle was constructed over a long period of time, although dating the construction of this phase of activity is challenging (Younger 2015: 222).

After this period of activity, the henge was then constructed, wrapping the entire site in a substantial rock-cut ditch c. 4m wide with a diameter of 44m (Ritchie 1976: 10; Younger 2015). Animal bones within the basal fill of the ditch produced a date range for construction of c.3350-2600 cal BC (Barclay 2005: 91; Younger 2015: 28). Animal bone and sherds of Grooved Ware were found within the ditch fill and considered to be signs of feasting at the site, with four vessels placed in the ditch terminals (Ritchie 1976: 11). Whilst the dates from Stenness are very early, the idea of an Orcadian origin for all henges is perhaps a narrative that stems from the lack of investigation and dating of the majority of Scottish henges until quite recently. Orkney and Wessex are two of the most intensely investigated regions and this is reflected in the majority of publications related to henge monuments. In contrast to most Neolithic monuments, Stenness is situated in a landscape with a visible population in the form of settlements. Both Stenness and Durrington Walls (Wessex) are found in proximity to a large village and associated with Grooved Ware, highlighting that the 'domestic' and the 'ritual' can be found in close association within the landscape, although evidence of settlement is generally found as ephemeral remains of hearths or pits. Younger's biography of Stenness outlined a possible sequence for the creation of a site at which the last major project involved the construction of the henge. She argued that the use of fire, and the construction of possible timber/stone structures, were evidence of place-making, similar to events that occurred at Cairnpapple (Younger 2015: 229). The character and biography of Stenness differs from its 'paired' henge across the promontory: the Ring of Brodgar.

The Ring of Brodgar has a rock cut ditch c.10m wide enclosing an area of c.123m in diameter, and there is strong evidence that there was never an external bank (Downes *et al.* 2013: 114). Geophysical surveys have investigated the interior of the ditch and have identified possible archaeological anomalies, but have confidently shown that substantial features like those found at Stenness are not present within the interior of Brodgar (Downes *et al*. 2013: 90). The stone circle is one of the largest in the British Isles with a diameter of c.103m (*ibid*: 99). The shallow nature of the sockets could suggest the architecture is concerned with

representation rather than longevity (*ibid*: 104).[23] It appears to reference the direction of the causeways that punctuate the ditch, as the stones closest to the south-east causeway appear to become progressively closer (*ibid*: 101). The ditch itself was dug into the bedrock in sausage-like segments which were then joined together through a lengthy process using hammerstones wedges and antlers (*ibid*: 110-111). Evidence that the ditch was kept clean through burning was also found in some trenches, although no material suitable for radiocarbon dating was recovered (Downes *et al.* 2013: 110). The cutting of the ditch has been estimated to have occurred during the period of 2600-2400 BC, using Optically Stimulated Luminescence (OSL) dating analysis (*ibid*: 112-113); this makes the construction of the Ring of Brodgar earthwork much later than that of Stenness.

The Ring of Bookan is a ditched enclosure which has an internal area (44m) and a broad ditch (c.13m) similar to Stenness, however, there is no visible evidence of an accompanying bank or entrance. The site is unexcavated and, therefore, the interpretation as a possible henge is tentative; the similarity of the ditch to that of Maes Howe, and the presence of stones within the interior, also arguably suggest that the site is the plough damaged remains of a chambered cairn. A site c.50m in diameter is also found at Staney Hill, although this has been damaged by the construction of a road. Staney Hill sits upon the highest point in the landscape and is located close to a number of barrows and standing stones. The site was investigated as part of a field survey of barrows (Orkney Barrows Project) and described as a henge due to the presence of a bank and ditch. Both these Orcadian sites share some similarities with the earthwork at Stenness but require further investigation. The ditch surrounding Maes Howe was described as a henge by Tom Clare (1986), but is regularly considered to be related to the chambered tomb and previous structures on the site. The bank sits internal to the ditch and appears to have been a stone and rubble wall at one point. There is also evidence of a possible stone circle surrounding the tomb and laying within the circumference of the bank, as a stone socket with packing stones was found during excavation of the interior, however the stone had been removed in antiquity. Geophysical surveys have also revealed that the site sits within a range of barrows, burnt ground sites, enclosures and settlement remains (Card and Ovenden (2004; 2005).

[23] The fallen stones were re-erected in the early 20th century.

The Earthwork at Stenness is an early site which has the well-known form of a henge with an external bank and broad ditch. Other sites in Orkney share dimensions with Stenness but are lacking in archaeological focus, making it impossible to suggest a regional pattern of similar and contemporary earthwork construction.

Bronze Age henges of Mainland Scotland

In comparison, the Scottish mainland is home to several henge monuments from the Early Bronze Age which have been discussed in biographical accounts by Younger (2015) and identified as a particular tradition in the North-East (Bradley 2011b). Bradley's 2011 *Stages and Screens* publication details the excavation of the henges of Broomend of Critchie, in North East Scotland, and the northern sites of Pullyhour, Lairg, and Loch Migdale, but also reviews the sites within the wider context of Scotland's henge monuments. Therefore, this section will not seek to undertake a detailed review of all henges within Scotland, as such an evaluation has already been coherently and comprehensively presented in Bradley's 2011 book. Rather, the general trends and patterns of the Scottish sites will be presented with reference to examples.

The henges of Scotland are distributed largely around coastal and low-lying regions, with stone circles having a much wider distribution in the North. The clustering of henge sites in North and North East Scotland highlight the small diameter of a large number of sites (discussed in *Section 5.5.4*; see *Figure 45* and *Figure 46*). Few henges are confidently dated to the Neolithic (Stones of Stenness and Balfarg Riding School), with dates from other excavated sites suggesting a later construction (dating to the Beaker period: North Mains, Broomend of Crichie for example). Bradley argued that there are two phases of henge building in Scotland (2011b: 111), whereas Younger suggests that instead the henges of Scotland could be representative of sporadic building projects over a long period of time, beginning around the start of the c.3000 BC and continuing into the Bronze Age (2015: 28). *Chapter 6* has shown that Scotland has some of the earliest dates from the Stones of Stenness earthwork, however *Figure 54* has also highlighted the later dates for henge sites with a small diameter.

The embanked enclosures of Ireland have parallels with sites in Wales and Northern England (as discussed in *Section 7.2*) and are generally considered to be Neolithic in date. The later Scottish henges attest to similarities in architecture and monument construction that

support a continued link between Ireland and Scotland; the Irish site of Dun Ruadh is comparable with the small Scottish sites such as Pullyhour, and Bradley argues for a link between Irish ring barrows and later Scottish henges (*Figure 67*) (2011b: Chapter 6, 183). Use of henge monuments for burial continues into the Late Bronze Age in Scotland, and the henge at Picts Knowe is also reconstructed during this period (*ibid*).

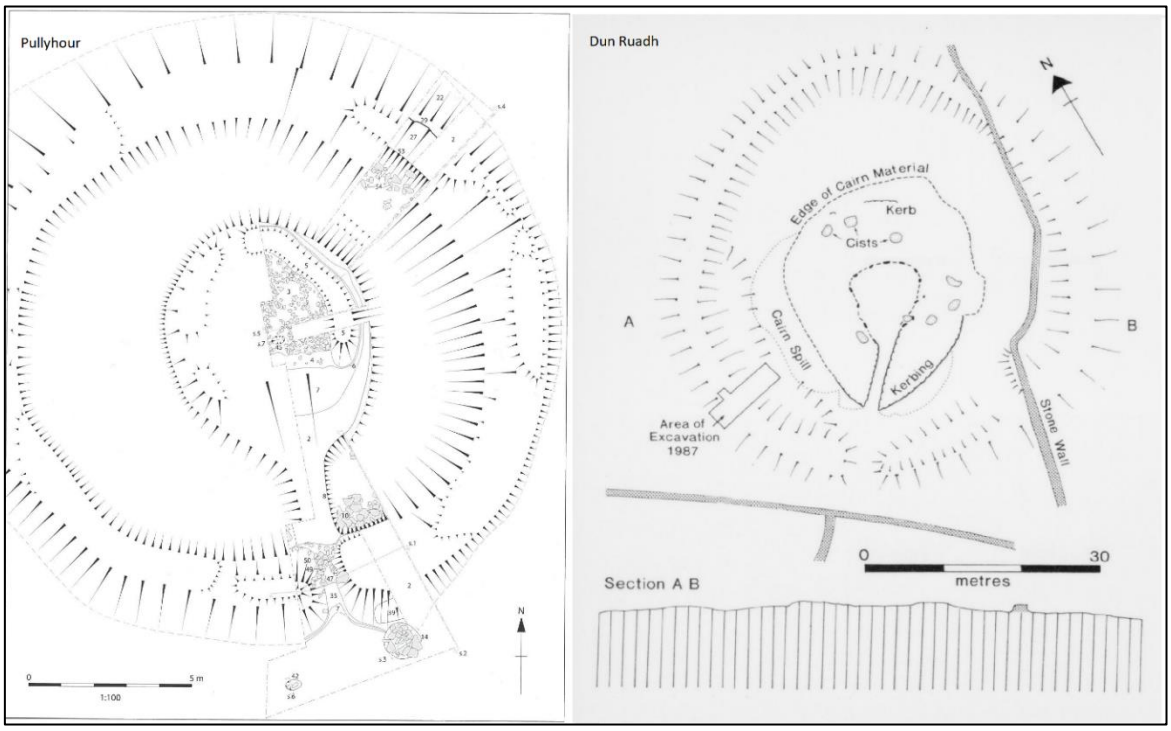


Figure 67: Site plans of Pullyhour, Scotland (Bradley 2011b: illustration 4.5) and Dun Ruadh, Northern Ireland (Simpson et al 1991-2: fig.2).

The association between henges and mortuary practices is clear at the Scottish examples with a large proportion linked to cremations, cairns, and Beaker period burials. *Section 6.3.2* outlines the sites that also appear to have clear associations with cremations, and sites of a similar small size can be seen to have cremations inserted at a later point in the sites history – perhaps due to the size and form being recognisable as similar to a barrow (see *Figure 54*). Similarly, the henge at Broomend of Critchie is part of a monument complex which has seen substantial change over time. Early Neolithic activity and a shaft grave in the centre of the area, which would be later enclosed by the henge, attest to the site's significance and burial focus prior to the construction of the henge earthwork in approximately 2150-1900 BC (Bradley 2011b: 74). The long association between henges and the dead in Scotland could stem from the enclosure of chambered tombs within earthworks, such as that surrounding Maes Howe (*ibid*:184-5). The findings within *Chapters 5* and *6* support Bradley's argument

that smaller sites continue to be built and used for burials after the larger sites cease to be constructed and used (2011b: 182).

7.3.3 A Yorkshire Type?

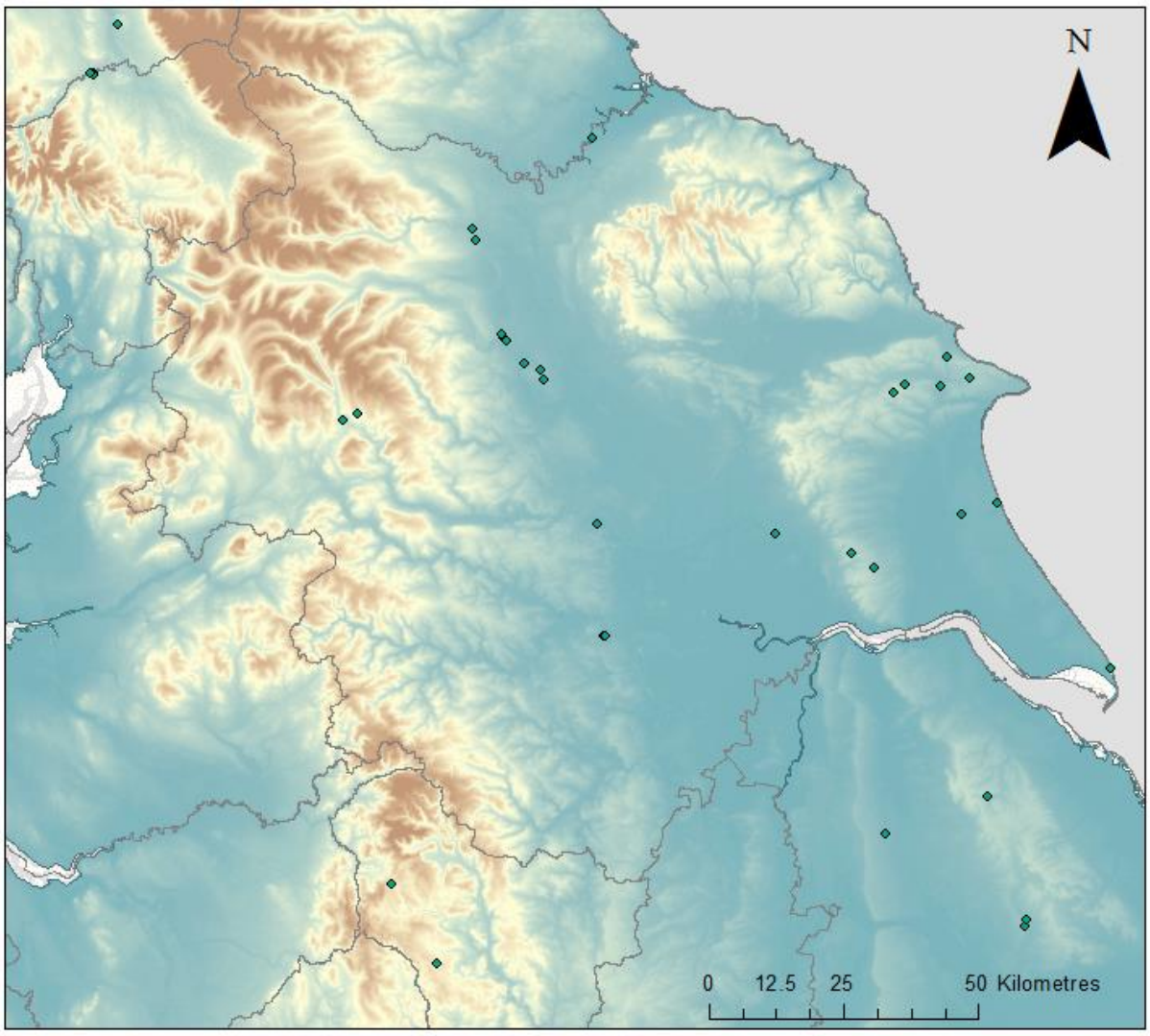


Figure 68: Sites within the county boundary of Yorkshire (centre)

Threshfield and Yarnbury

Figure 68: Sites within the county boundary of Yorkshire (centre) above shows the number and location of sites found within the Yorkshire region, including the well-known linear arrangement of henge sites in the A1 corridor. Visible to the left of this linear arrangement is a small cluster of sites which sit within the Wharfedale valley of the Pennines, including the two sites at Threshfield (henge 1 found through aerial photography in 2006, and henge 2 through LiDAR data in 2012). Both Threshfield 1 and 2 have a similar form with a more substantial inner ditch and appear to follow the alignment of the valley of the River Wharfe.

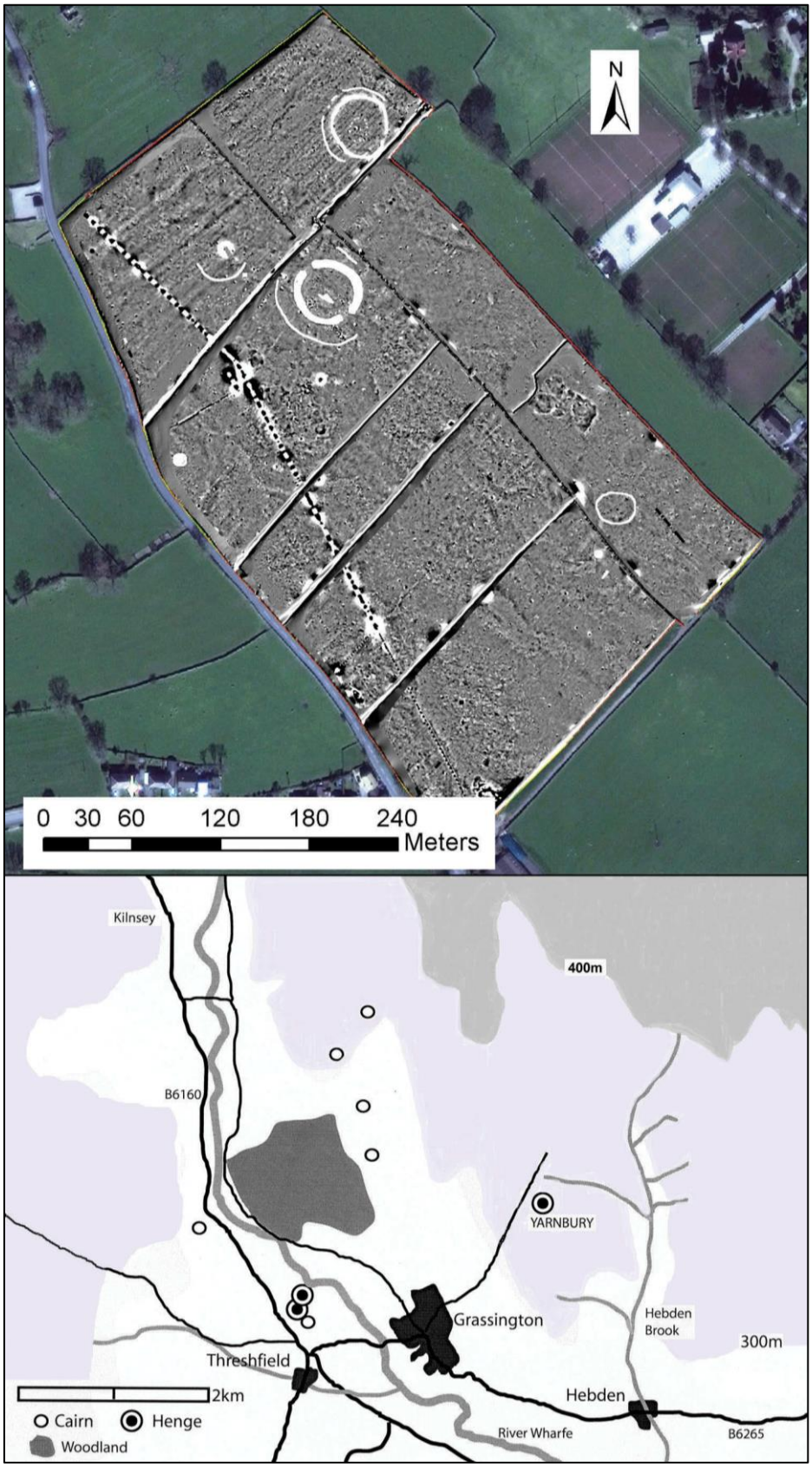


Figure 69: TOP: Magnetometry survey of the Threshfield henges; BOTTOM: Map showing the location of the Threshfield and Yarnbury henges (Gibson 2018: illustration 3 & 12).

Threshfield 2 appears to have a wider ditch and has a larger diameter, and both sites appear to show evidence of a potential pre-henge phase of activity, although further excavation would be essential to investigate possible features and establish a sequence of site use.

Nearby lies Yarnbury henge (*Figure 69*), which conforms to the original class I 'type', however, it is situated in apparent isolation, and on a ridge providing a raised viewpoint with extensive views making it visible on approach from most directions, and with the entrance aligned SE towards Simon's Seat and the midwinter sunrise (Gibson 2018: 15). A rectangular feature off centre of the enclosure, was found to be an earlier Neolithic house structure upon excavation (Gibson 2017), but surveys supported the notion that the site sits in isolation.

The Thornborough Complex

The henges along the A1 corridor have a clear physical form which is repeated at six sites in a linear arrangement covering c.12km stretch of the River Ure (Harding 2003: 87; see *Figure 13*; see also *Section 3.4.3*). The central cluster of sites include the linear arrangement of three henges at Thornborough (*Figure 48*). Each henge is spaced approximately 550m apart and the alignment is superimposed with precision upon earlier monuments; the entrance of the central henge is positioned in direct relation to the ditch of the cursus (Thomas 1955; Harding, J. 2000; see *Figure 70*). The form of the three henge monuments is strikingly similar, with almost identical layout and size.

Whilst this similarity and highly organised layout suggests a planned phase of construction, detailed investigation has suggested a gradual and elaborate sequence (Harding 2000). The outer ditches appear segmentary with multiple interruptions, in contrast with the continuous internal ditch, which has been argued to suggest two phases of construction (Harding 2000: 35-36). However, more recently Harding argued that the Thornborough sites were part of a rapid project and were perhaps even only in use for a 'few days' (Harding 2013: 7). The complex was not a result of a single episode of monumental construction, even though the deliberate positioning and spacing of these henge monuments in relation to each other, the cursus, and later monuments suggests that meanings associated with the complex were understood and extended within 'a familiar frame of reference' (Harding, J. 2000: 38). Thus, the architectural elements within the Thornborough complex were added within a direct association and continuation of previous meanings. The spatial layout of these henges

controlled and directed movement through the landscape by the alignment of the henge causeways (see *Section 7.4.2* below).

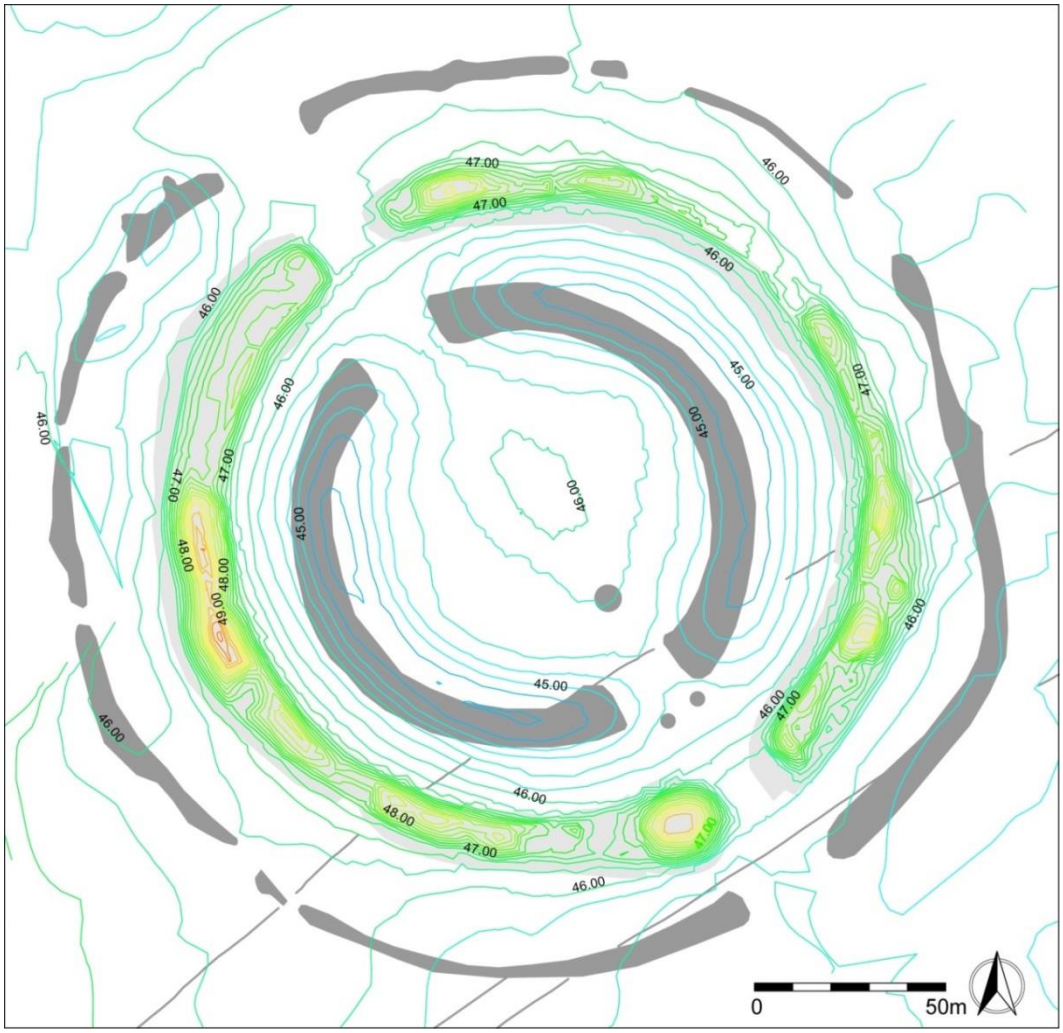


Figure 70: Topographic survey of the central henge, showing the alignment over the cursus monument (Harding 2013; the ADS digital Archive)

Most investigative work at Thornborough has been through extensive fieldwalking and excavation of nearby monuments. Limited excavation of the Central henge investigated the relationship between the ditch and cursus only (see *Figure 70* above) and the 1996-7 excavation of the Southern Henge concentrated on the causeways and ditches, meaning the interior remains uninvestigated (Harding 2013).

The Thornborough henges were constructed in an area of importance – one of the earliest monuments being the triple-ditched round barrow, which lies to the south-east of the Southern henge. The barrow was in use during the 4th millennium and its sits in an area which was the site of concentrated earlier sporadic flint knapping centres (Harding 2013:

142). The creation of the barrow and the nearby gypsum-lined pit containing the fragmented remains of different individuals brought a community together in the experience and creation of a monument in a landscape that was well-known (*ibid*). Following the abandonment of the barrow, the cursus (and possibly the undated oval enclosure) was constructed, stretching c.1.2km across the central part of the plateau (see *Figure 48*). The earthwork could have been constructed in stages, with episodes of backfilling and development and its placement across the plateau arguably suggests an intentional creation of a monument (Harding 2013: 142). The cursus ditch was mostly or entirely silted when the central henge ditch was constructed (Thomas 1955: 432), however it is perhaps likely that the earthwork was still visible as a slight depression or as the remains of the accompanying bank. The alignment of the henge entrance with the ditch of the cursus hints at intentional continuity, however the circular shape, and the different alignment suggests a reinterpretation of the monument complex 'and the social relations with which it was associated' (Harding 2013: 143). The size of the henges suggests a large increase in the effort required for their construction; a larger community coming together for the creation of a monument, and indeed for use of the space, could suggest that the links forged across communities using the plateau were growing. The construction project itself formed the medium in which relationships and organisation were created and negotiated (Harding 2013: 144). Evidence of a staged construction was visible at the Southern henge, and a phased construction was also argued for Ferrybridge and for Nunwick where visible load lines could be seen in the remaining bank (*ibid*).

Features in the entrance of the Southern Henge point towards a possible timber structure in the area of the northern entrance, which is suggested to pre-date or be 'broadly contemporary' with the henge itself (Harding 2013: 108-9; Younger 2015: 284). Younger's biography of the Southern henge highlights the significance of the bank, which was coated in gypsum, giving it the appearance of a white surface: a clear choice to focus on the appearance of the bank (Younger 2015: 285-5; Harding 2013: 51). Few artefacts were recovered during excavation which Harding argues stemmed from an 'obsession' with keeping the interior of henge monuments clean (2013: 198) whilst Younger suggests that objects were perhaps selected carefully for deposition at a henge (2015: 285). The outer ditch of the Southern henge was considered to have been backfilled or have collapsed soon after it had been excavated, whilst the amount of charcoal found in the second fill suggests a

number of fires had been lit around the monument during this phase (Younger 2015: 286). It is also possible that the entrance was blocked by timber uprights (Harding 2013: 96; Younger 2015: 286). Whilst the henge fell into disrepair and the earthwork slowly eroded, focus appeared to move towards the pit alignment to the west (Younger 2015: 287). The pit alignment is associated with fragmentary lithics and pottery vessels deposited within the postholes and was in use from the Early-Middle Bronze Age. Harding suggests its placement close to the Southern Henge is intentional: a further act of citation (2013: 146).

The repeated form of the three henges at Thornborough suggests that the sequence of construction was similar at all three sites, and perhaps as part of a long term-vision (Harding 2013: 145). It is impossible to say in which order the Thornborough henges were constructed or went out of use; its association with the earlier cursus arguably suggests that the central henge could have been the initial project of construction. Further investigation is needed to understand the development of the complex as a whole, and the dating of these double-ditched henges concentrated in the Yorkshire region.

The Ferrybridge Complex

Ferrybridge henge is the southernmost henge in the linear arrangement described above and situated between the Pennines and the Vale of York, known historically as an important routeway (also see *Section 7.3*). A number of barrows can be found within the vicinity of Ferrybridge henge and nearby Newton Kyme, whilst a number of ritual monuments had been found within the Ferrybridge complex through aerial photography prior to excavation. Five hengiform type monuments (*Figure 71*) have been identified within the complex (Wheelhouse 2005: 21-35):

- Hengiform 155 comprised of a segmented ditch c.17.5m in diameter with a probable outer bank. A concentric ring of postholes encircles the interior, whilst a possible second phase of activity consists of a linear alignment of posts splitting the interior.
- Hengiform 176 has a substantial ditch enclosing an area c.42m in diameter with an entrance towards the east which is flanked by flared terminals to the ditch. A recut of the ditch circuit was dug once the ditch had stabilised following weathering.
- Hengiform 162 began as a 14m diameter circle of irregular pits. The apparent entrance way sits between two pits, one of which was a redefinition of an earlier pit

and contained the cremated remains of two children. The remains of the youngest child gave a date of 3090-2700 BC (GU-11049).

- Hengiform 161 is situated in the immediate vicinity of site 162. The earthwork has a diameter of 27m and is formed of a number of curvilinear 'gullies' which are between 8-10m in length. Three possible entrances have been identified within the truncated circuit, with the largest sharing an alignment with the henge entrance. It is possible that the other entrances are a result of truncation and later damage.
- Hengiform 178 survives as a partial large earthwork with an original diameter of c. 45m. An entrance was identified in the north-east and only a single phase of construction was identified in the excavated sections of the ditch.

A further three possible small segmented hengiforms (sites 145, 173 and 190) have also been found. These small hengiforms all suffered damage from later land use meaning a number of monuments were truncated. Due to this, there are no reliable dates from the hengiforms or stratigraphical relationships to accurately interpret the sequence of construction of the complex. The only date stemming from these sites came from the pit, which flanks the entrance at Hengiform 162, and provides a date range of 3090-2700 BC (GU-11049). Wheelhouse considers these hengiforms as likely to be Neolithic in date and, therefore, predating the henge at Ferrybridge (Wheelhouse 2005: 28). A number of other monuments have been discovered, including barrows and timber circles as well as a number of unidentified sites (Wheelhouse 2005).

Ferrybridge henge itself has seen limited excavation, however, the trenches did reveal a second outer ditch beneath the dispersed remains of the bank, from which the upcast was added to the bank. The bank itself revealed a series of episodic bank construction phases with evidence suggesting there were periods of hiatus, which could suggest a long period of construction with periods of stability (Roberts *et al.* 2005: 224-5, 235). A ring barrow known as Henge Barrow lies between the ditch and bank of Ferrybridge henge and it has been suggested to have been cut by the henge ditch (Wheelhouse 2005: 48). Burnt material (charcoal and charred grain) from the henge bank gave dates of 3358-2876 (AA-40923) and 3040-2645 (GU-5217), which would place it early in the sequence of henge dates (Roberts and Richardson 2005: 191). As these dates could stem from residual material, the date for the henge construction is tentatively considered to be c.3000 BC. Dates from timber circle

140 and hengiform 162 suggest that these sites pre-dated the henge, whilst a number of other timber circles and barrows could be considered roughly contemporary with the henge. Later cremations, however, attest to the longevity of these ritual monuments and suggests that they were still visible or remembered some time later (Roberts and Richardson 2005: 194).

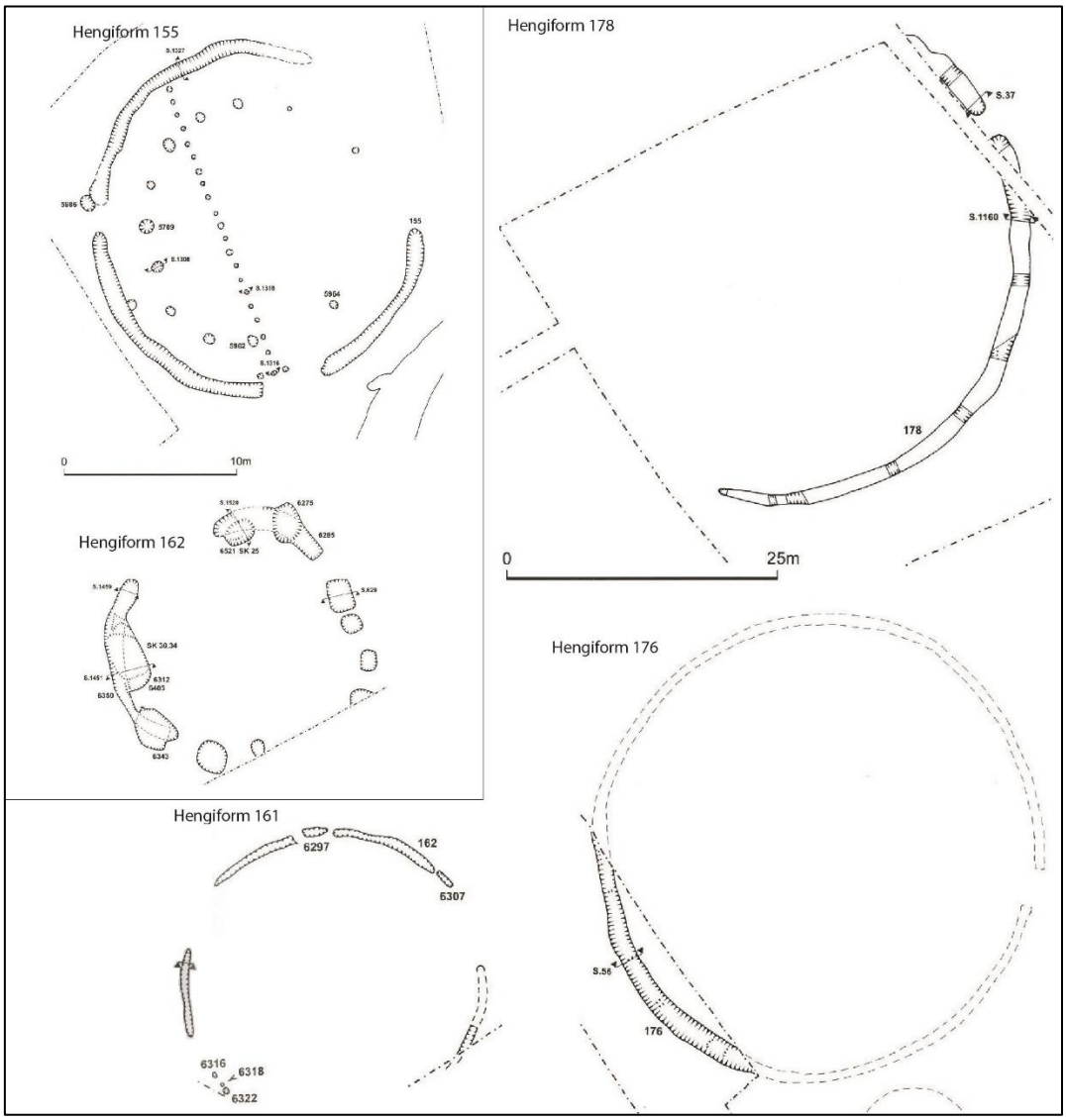


Figure 71: Site plans of the Ferrybridge hengiforms (after Roberts (eds) 2005: figures 13, 18, 23, 24 and 25).

In summary, the henge at Ferrybridge was an addition to an established ritual landscape, one which was already characterised with Neolithic barrows and hengiforms, which then grew over time. The monuments saw episodic construction and re-freshing, and the area then became a focus of a number of Bronze Age barrows. Whilst the henge itself is similar in form and location to those at Thornborough, the surrounding hengiforms also appear to form two groups. The larger sites appear to have a segmented gully-like ditch, whilst the

smaller enclosures were pit-defined circuits (Roberts and Richardson 2005: 200). Comparable pit defined sites can be seen at Etton, Wyke Down, the Dorchester complex and Newton Kyme (*ibid*).

The henges of East Yorkshire

The sites clustered close to the East Yorkshire coast (*Figure 49*; *Figure 68*) have seen little excavation, with only Paddock Hill, Maidens Grave and Catfoss being excavated. The double-entrance earthwork of Maiden's Grave (typical 'class II') is sited on a slope close to the Gypsy Race stream and appears to be within an area of barrow concentration. This association with barrows is also acknowledged with the unexcavated sites of Grindale and Newbald.

Maiden's Grave was excavated following its identification from aerial photography in 1964. Trial trenches revealed that the chalk gravel bank would have rapidly eroded, and the ditches exhibited phases of silting and disturbance. The site revealed few finds, other than two sherds of Beaker and Peterborough Ware from the second phase of silting, along with a 'hearth' within the ditch (McInnes 1964: 219). Nearby around the village of Rudston (c.2km away) is a concentration of cursus monuments, suggesting that the area had a well-established ritual focus prior to the construction of Maiden's grave (Dymond 1966).

Comparisons

The Yorkshire henges have until recently received little attention through excavation. Harding's (2013) detailed investigation of the Thornborough landscape and Gibson's recent investigations at Yarnbury and Threshfield have shed new light on henge construction and use across the region, whilst exposing Castle Dykes as being a much later monument and not part of the Neolithic and Bronze Age landscape of Yorkshire (pers. Comm.; Gibson 2014b; 2017; 2018). Some similarity in form is evident between the Threshfield sites and the linear arrangement of the double-ditched henges at Thornborough, Nunwick, Hutton Moor and Cana Barn (*Figure 13* and *Figure 69*). Maiden's Grave lies close to an established ritual landscape near Rudston, which includes a cursus, however its form conforms to the class II henge group, unlike the Thornborough sites. The henge site at Ferrybridge (58km away) has provided dating evidence to suggest that the inner ditch and bank were constructed c.3000 BC, with the outer ditch added later (Roberts *et al.* 2005: 235). This date has suggested that the Yorkshire sites could be dated earlier than first thought, although further investigation would be needed to find further dating evidence. Previously the Thornborough henges had

been considered to be late in the currency of these monuments, based upon dates acquired from Condicote which shares a similar form (2279-2031 cal BC and 2199-1920 cal BC, HAR-3064 and HAR-3067 respectively; Whittle *et al.* 1992: 191-2).

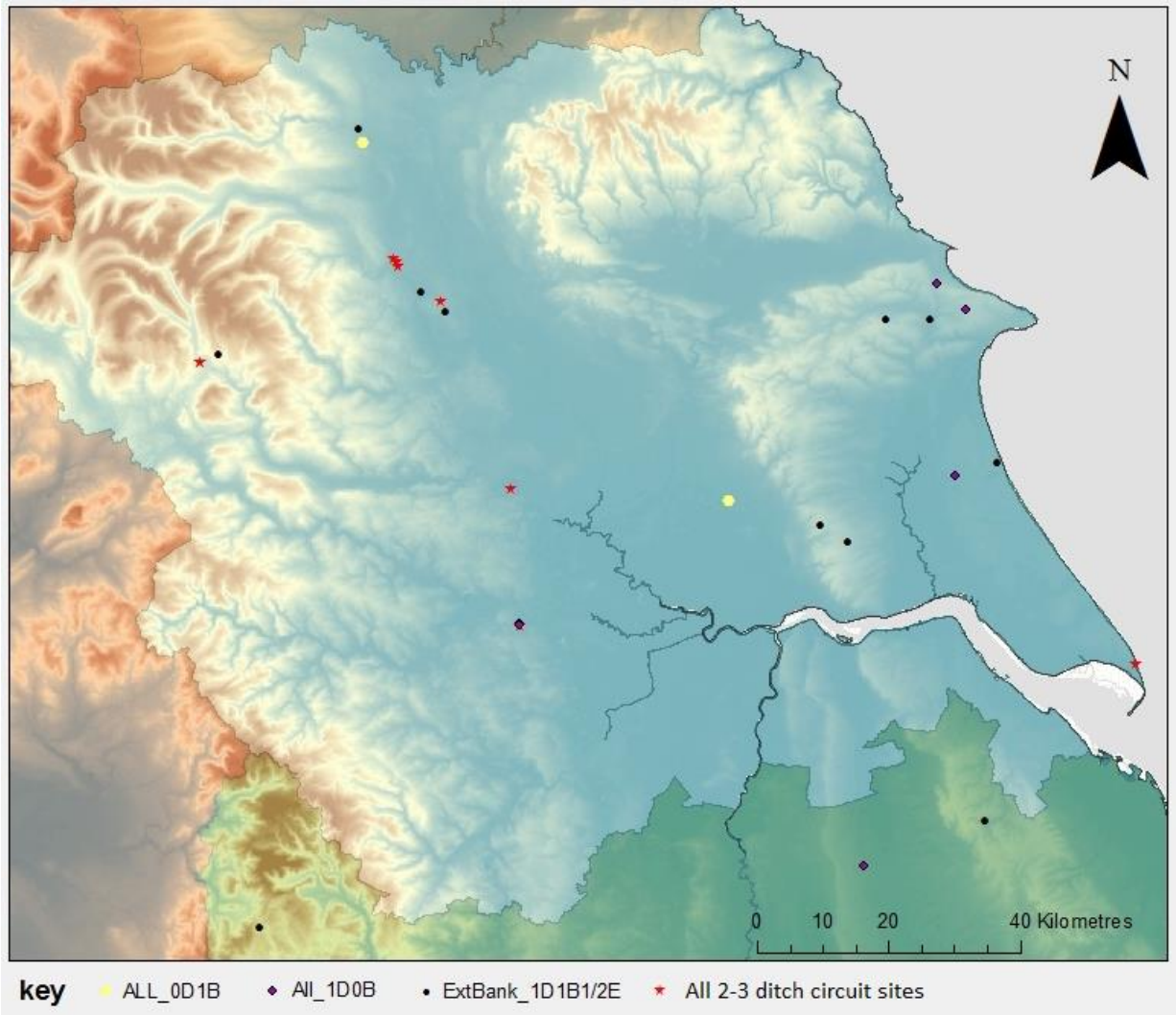


Figure 72: Henge sites within Yorkshire shown through form

In contrast to the sites described above, the construction of the henge at Catterick appears comparable to the Cumbrian site of Mayburgh, as well as Irish sites such as Monknewton and Friarstown (discussed above in *Section 7.2*). The bank section at Catterick contained a concentration of pebbles amongst its makeup and enveloped an earlier Late Neolithic/Early Bronze Age cairn and pit cluster (Maloney et al. 2003). The hengiforms at Ferrybridge described above are also comparable to sites outside of Yorkshire: hengiform 155 has been compared to Aylsham (Norfolk) and even Milfield North (Northumberland), whilst the larger sites of hengiform 176 and 178 could be compared to West Heslerton (Roberts and Richardson 2005: 200).

The Yorkshire region, whilst exhibiting diversity, presents a clear regional pattern in the double-ditched and two entrance henges. The form is repeated at a number of sites which are all located in the strip of land between two clear land formations in the Pennines and the low hills of East Yorkshire (*Figure 72*). The link between routeways and henges is clear here, with the henges arranged in a linear north-south alignment, and with henges attributed to each of the main rives in the region: Thornborough, Cana Barn, Hutton Moor and Nunwick are positioned on the Ure; Newton Kyme and Yarnbury on the Wharfe; Ferrybridge on the Aire, and the more unusual site at Catterick on the Swale (Roberts and Richardson 2005: 196).

7.3.4 Northumberland

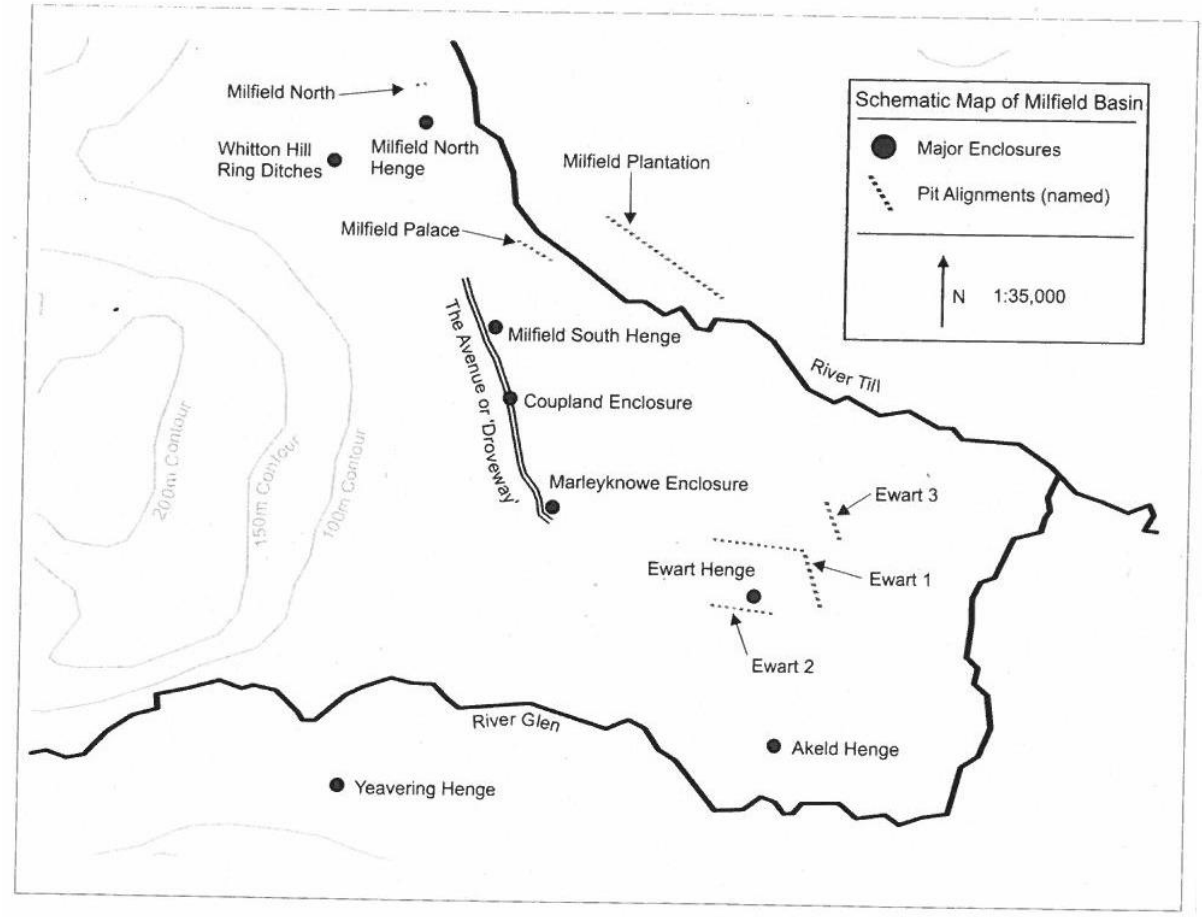


Figure 73: Location of Milfield site enclosures and pit alignments (Edwards 2004: Figure 1)

The Milfield Basin is home to a linear arrangement of enclosures from Linthaugh to Wooler, described above in *Section 5.5.4* (see *Figure 47*). Milfield North, Milfield South and Whitton Hill 1 all have broad ditches encircling the interior space, whilst Akeldsteads and Ewart Park are visible as broad cropmarks. Coupland, Ewart Park, and Akeldsteads have opposed

entrances which are aligned roughly NW-SE, following the direction of the basin and parallel to the course of the River Till. Milfield North has a similar N-S alignment, whilst the single entrance sites of Milfield South and East Marleyknowe are aligned NW and W respectively. The outlying site at Yeavering has opposed entrances facing E-W, which run parallel to the course of the River Glen (*Figure 73*). Several pit alignments also scatter the area, and Early Neolithic activity is found at a number of sites in the form of pits and material remains (for example, burnt hazelnuts and Grimston Ware at Coupland). The pit alignments follow a similar alignment to that of the henge monuments, with Ewart 1 and 3 aligned NW-SE and the Milfied alignments following the course of the river.

Milfield North consists of a broad segmented ditch with low causeways separating the segments. The site has two main entrances and a third narrow causeway to the south-west. A concentric ring of c.30 small pits winds around the interior edge of the ditch; approximately half were excavated but no clear evidence of posts were found. Around the exterior is a large concentric ring of pits; the pits varied in size and cut, but some were found to contain posts. Several pits were investigated within the interior and despite the presence of cist slabs in pit A , as well as Beaker and Food Vessel sherds in other pits, no human remains were found; the pits were however interpreted by the excavator as likely graves (Harding 1981). A large irregular pit lay 35m south of the southern entrance, in line with the axis of the enclosure. The pit was found to have been recut and had seen extensions on several occasions, with a later phase including the insertion of a broad post, suggesting that this pit was a significant focus of activity in the area.

The site at Whitton Hill 1 is one of a number of ring ditches in the vicinity of Milfield North. The earthwork is comparable to Milfield North (*Figure 73*) with its broad segmented ditch circuit and internal circle of small pits. The site was associated with cremation deposits, one of which was found contained within an inverted urn that resembled Peterborough Ware. The excavator describes the ditch as being refilled relatively quickly after construction, however the cremations were a later addition (Miket 1985).

Whilst Milfield North, Milfield South and Yeavering are similar in size, the internal features appear to have been varied. The asymmetric Coupland enclosure has been considered an Early Neolithic enclosure, due to its structural relationship with, and dates from, the 'droveway' (*Figure 74*) (Waddington 1996; 1999); however, the form of Coupland is

comparable to henges of the Later Neolithic (Edwards 2004). The Milfield Basin requires dating to be at the forefront of any future investigation, to understand the development of the monuments within the basin, unfortunately ploughing has damaged several sites but there are cropmarks still uninvestigated (for example, Wooler Cricket Pitch). The sites of Milfield do suggest that within this region the construction of the earthwork was related in part to movement through the river basin and the presence of Early Neolithic pits and pit alignments in the area attest to a long history of site creation in the area.

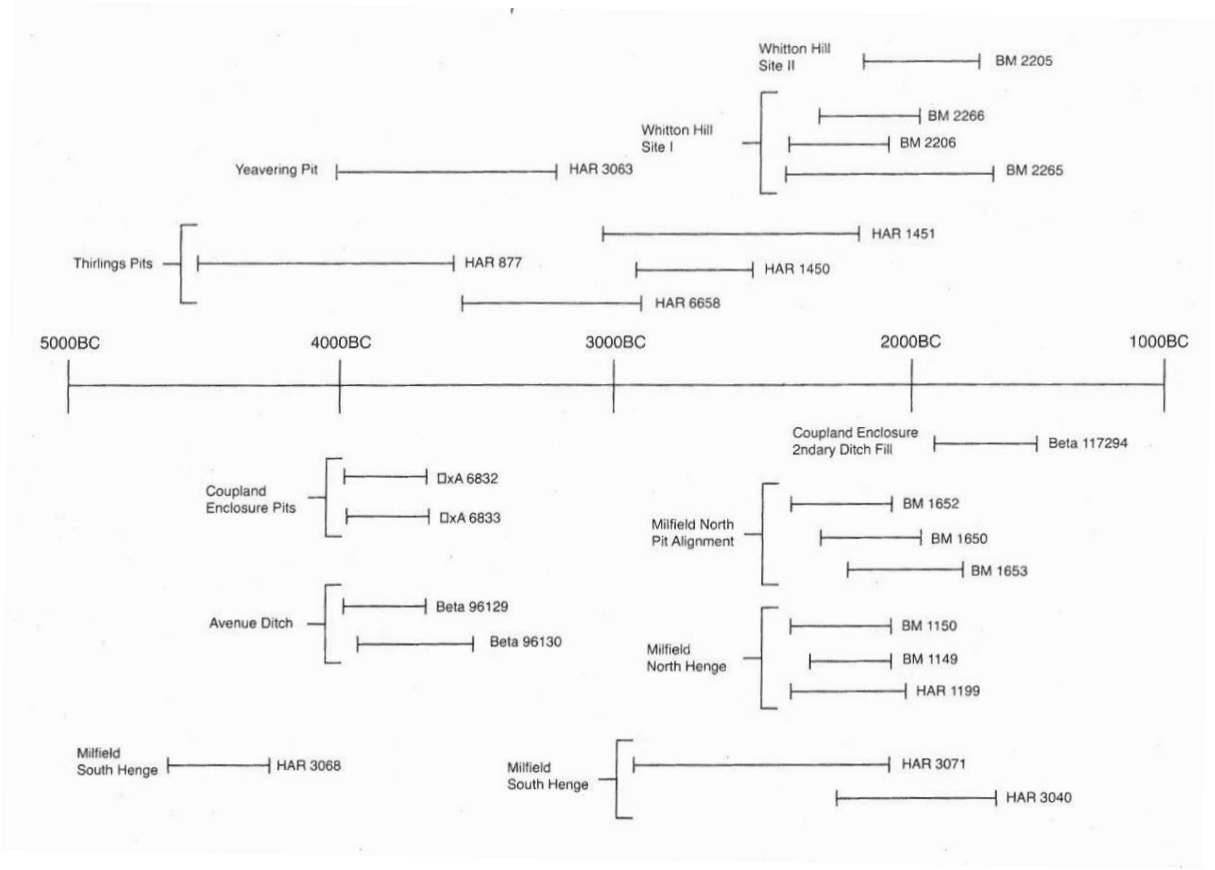


Figure 74: Dates from activity within the Milfield Basin (Edwards 2004: Figure 4)

The group of sites within this region suggest a clear link with directional movement through the valley, along the course of the river. The landscape was used for ritualised deposition at pit sites from the Early Neolithic and was clearly an established centre of activity throughout the Neolithic and Bronze Age. Without clear dates it is impossible to confidently suggest a contemporaneity in the construction of the Milfield basin henges, however the shared characteristics on alignment and size do support the idea of construction based on similar principles.

7.3.5 Henge enclosures

The large enclosures of Wessex differ from all other sites within this thesis due to their vast internal size and tight geographical clustering. The site of Marden lies in a valley, close to and incorporating the river within its boundary; the valley is flanked by the chalk hills on which sits Avebury to one side, and the Stonehenge landscape to the other (see *Figure 50*). Mount Pleasant is within the Dorset region; Avebury, Mount Pleasant and Durrington Walls all have near circular earthworks with multiple entrances. The internal features of each of these enclosures differs: Avebury is known for its stone circles, whereas Mount Pleasant and Durrington Walls have timber circles and settlement complexes. Marden has an irregular boundary and once surrounded the large Hatfield barrow and internal henge.

Avebury and Durrington Walls are also associated with avenues, formalising routeways to and from the earthwork to another site (for example, Durrington Walls to West Amesbury henge). Excavations at the inner henge at Marden unearthed a structure with a compacted chalk floor with sunken hearth, like those found at Durrington Walls (see *Section 7.4.1* for a further discussion on henges and house structures). As *Figure 75* shows, the large size of these enclosures (c.300m internal diameter) marks these sites out as enormous construction projects within a similar geographic region; each of these sites is also associated with other large-scale features (for example the large sarsen stones at Avebury, and the vast settlement at Durrington Walls). It is also worth noting that each of the large henge-enclosures has smaller arrangements of circular structures within them. The timber circles at Durrington Walls and Mount Pleasant are similar in size to the circuits within Woodhenge, and are comparable with other timber circles (see

Table 13). Similarly, the stone circles within Avebury do not increase in size or occupy a central position.

Few sites match the vastness of these enclosures, but the large revetted bank at Blackhouse Burn 1 encloses an area c.300m in diameter and has an irregular earthwork similar to Marden (oak post from the revetment gave a date of 2834-2404 cal BC) (Lelong and Pollard 1998). Like Marden, the site at Blackhouse Burn is certainly linked to the nearest water course, with the Burn itself flowing from within the enclosure from the SW (*ibid*).

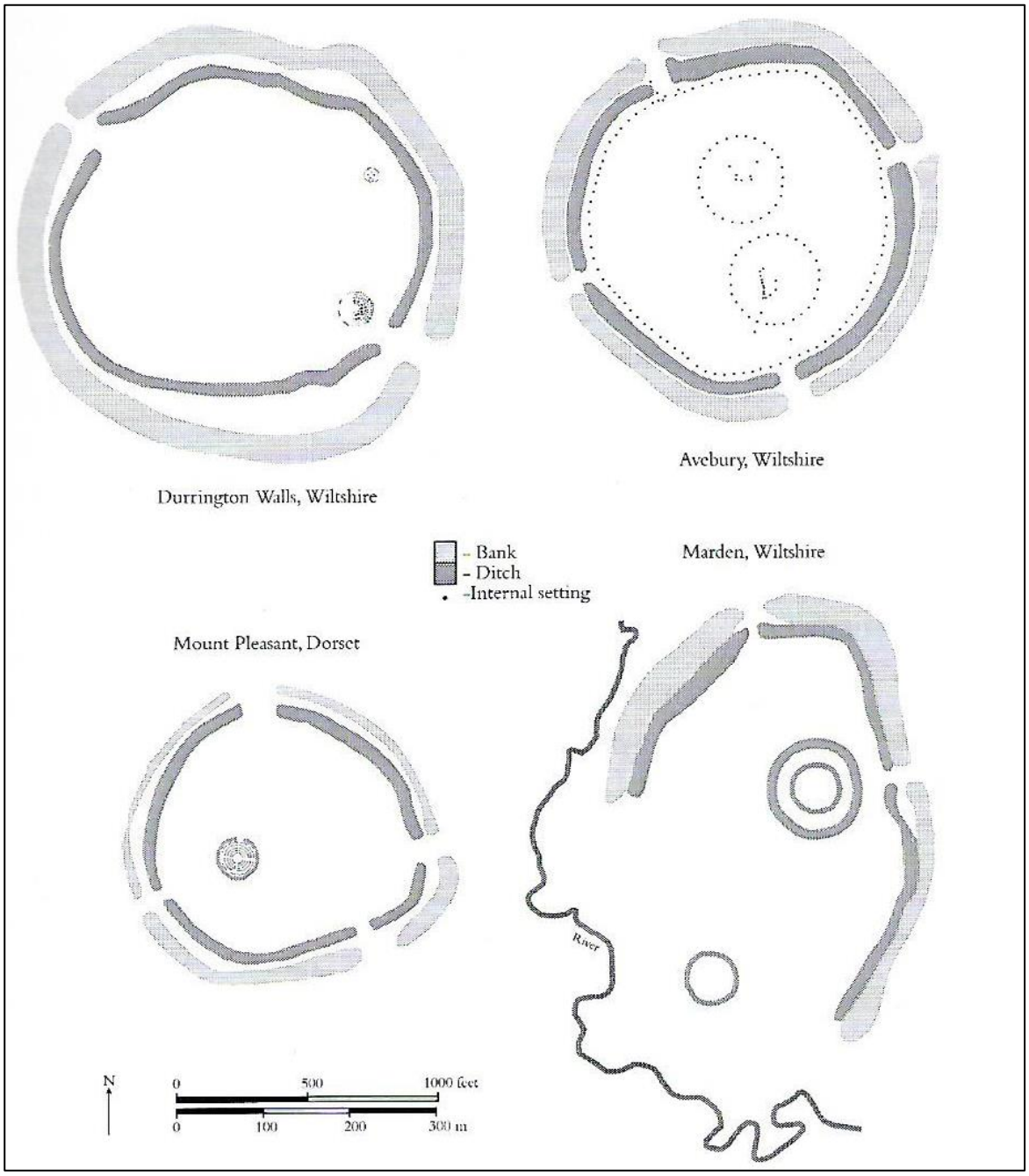


Figure 75: The henge enclosures of Wessex (Harding 2003: Figure 5)

7.3.6 Summary

The Yorkshire region represents a strong sense of what a henge is and can be, in its distinct form being very different to those of other circular contemporary monuments, such as barrows. The repetition of such precise measurements highlights the clear link between each monument. The cluster of sites within the Milfield basin show some variation in form, but arguably exhibit a shared principle in the alignment of the earthwork. In comparison, sites such as those at Maxey, Etton, Ferrybridge, and the small Bronze Age henges of Scotland, have a form that is comparable with barrows and ring ditches, creating a sense of ambiguity

in the distinction between monument types. The concentration of Bronze Age henges in Scotland does, however, strongly suggest a focus on henge construction in the North later in the timespan of henge use; future investigation and dating evidence from other barrow-like enclosures will illuminate the wider pattern of small enclosures. Similarly, whilst the large henge enclosures of Wessex are a small unique set of monuments within a large corpus, their size and geographical concentration argues for a similar distinct type of large enclosure within this region.

The variation amongst 'atypical' henges could support the idea of a blurred boundary of what is a henge, what can be defined as a barrow or ring ditch, and no distinction between these monument types. In some regions there is clear variation in the early development of henge monuments (e.g. Maxey, Dorchester and Llandegai), whilst the Priddy circles stand out as the clear exception: here the form of the earthworks is repeated in close proximity. Within the main period of henge monument construction during the Neolithic there does appear to be a wide range of variation (see *Chapter 5* and *6*, *Section 7.2*). There do, however, appear to be regional pockets of clarity in form type: namely in Yorkshire and across the large Wessex enclosures. The later henges tend to be found in Northern England and Scotland, with clusters showing little variation in form (e.g. the Milfield basin), with the Scottish examples suggesting a long period of continuity (see *Section 7.3.2* above for discussion).

7.4 Thematic discussion

This chapter has looked at patterns of form and date, highlighting regional patterns and variation. This section moves to look at larger themes relating to henge monuments: pre-henge site use, feature associations, movement and the placing of henges within a wider context of Neolithic and Bronze Age Britain.

7.4.1 Henges in a wider context

This section compares henges with other contemporary and significant materials, to assess whether there is a relationship between areas with henges and other activities which resulted in a difference in monument construction. Concentrated areas of rock art can be found in Northumberland, Yorkshire and Kilmartin, as well as in the Irish passage grave region. *Figure 76* below shows the areas with a high concentration of rock art, as well as the large area in which 'random' rock art is located (Scotland's Rock Art). The distribution of

henge sites does not appear to reflect the location of rock art, however there are areas where clusters do overlap with the concentrated regions, specifically the Boyne Valley and areas of Scotland and Wales. The cluster on the western tip of Wales is interesting considering the comparable nature of the embanked earthworks of this group and similar Irish sites (discussed in *Section 7.2*); the overlap does not extend to the embanked sites elsewhere, however.

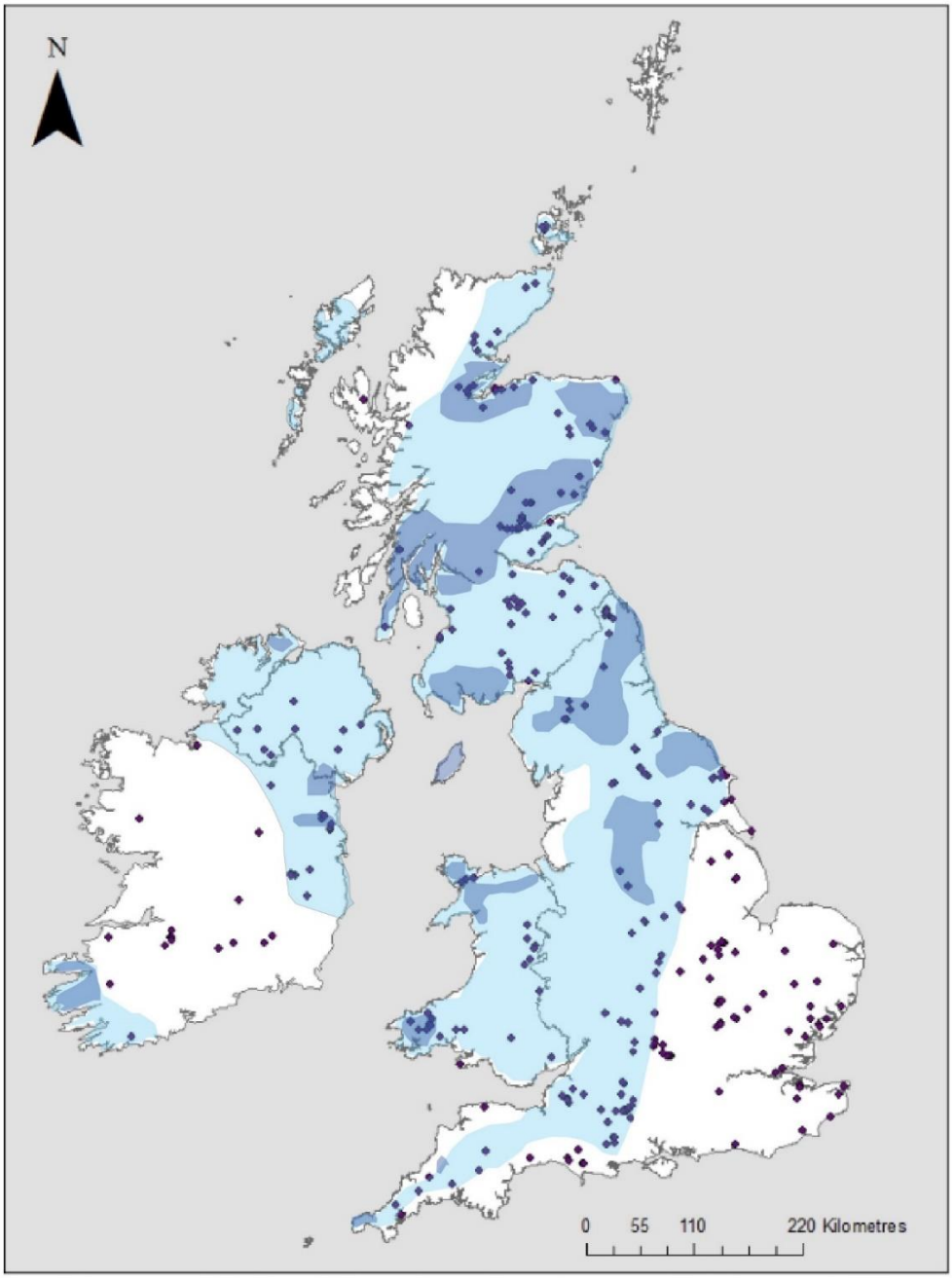


Figure 76: All analysed henge sites with the distribution of high concentration of rock art (dark blue), and occasional rock art finds (light Blue) (authors map, using data from Scotland's Rock Art).

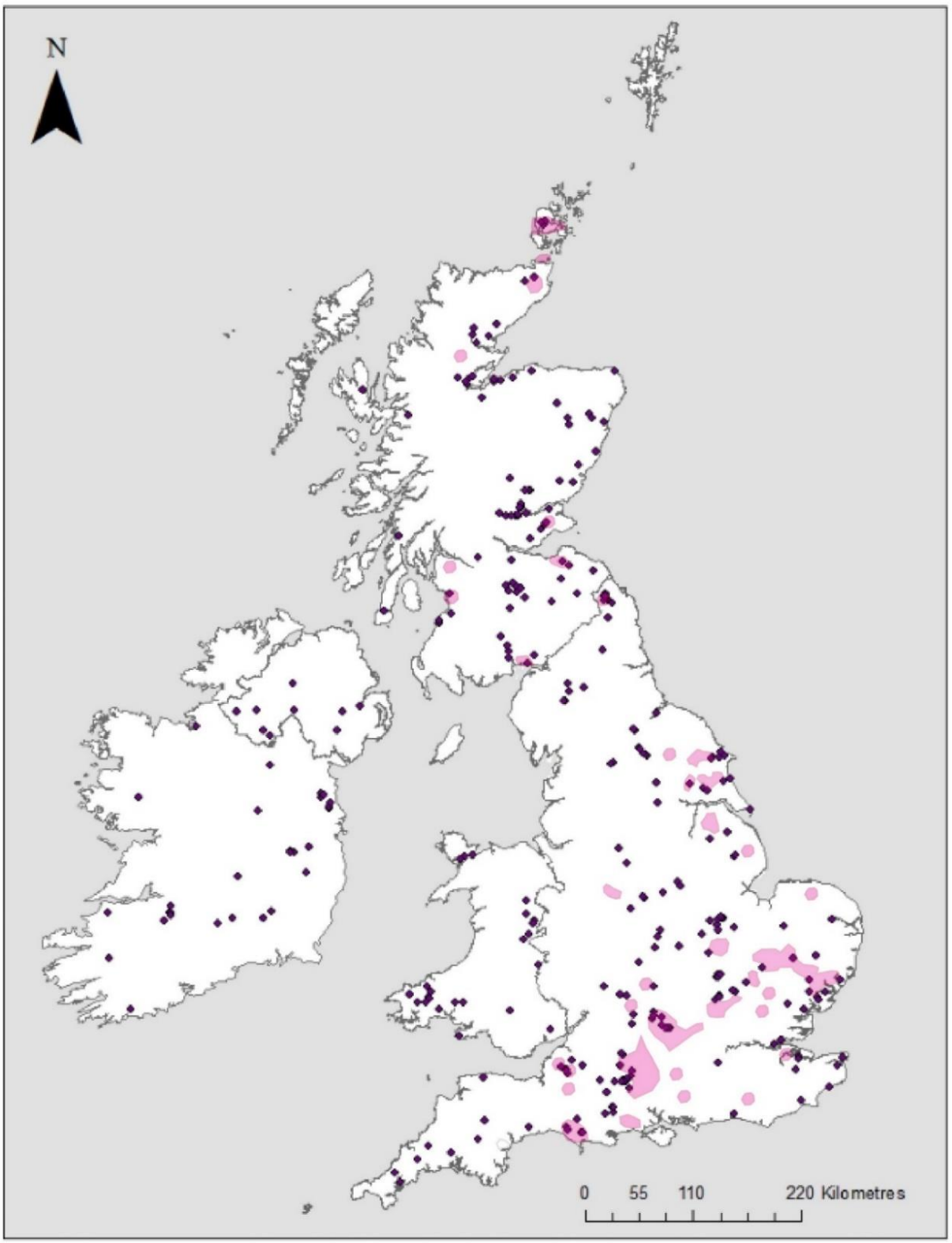


Figure 77: Distribution of all sites analysed compared with the distribution of highly decorated Grooved Ware vessels (after Cunliffe 2013: Fig.6.12)

Pot sherds are found in association with henge monuments, whether as surface scatters, ditch fill, or relating to pit features. The apparent association between Grooved Ware and henge monuments stems from the Orkney sites, where Grooved Ware is a significant part of life in the Neolithic villages and is found at Stenness. Henges have been described as part of a 'package' that stemmed from Orkney and are associated with the use of Grooved Ware vessels, however this assumption is weak and relies on a few sites with early dates (Harding 2003: 13). *Figure 77* above shows the distribution of highly decorated Grooved Ware vessels in comparison to the distribution of sites discussed in this thesis. The map shows that the association is unfounded, with the majority of sites in the North having no association with the highly decorated forms that are discussed at sites such as Durrington Walls and the Orkney cluster. Grooved Ware sherds are found at a number of sites but is often not thought to be contemporary with the earthwork (e.g. Balfarg, Balfarg Riding School – Younger 2015: 25). Grooved Ware is found at the henges of southern Britain, with large assemblages of highly decorated sherds concentrated in the Wessex Region, and are arguably related to feasting as a pre-henge activity (see *Section 3.4.5*) (*Figure 77*). Deposits at other henges could be seen as dedicatory in nature, for example an almost complete vessel with a highly decorated base was placed in the SW terminal pit of Wyke Down 2.

In contrast, Beaker sherds are common finds at Scottish henges, with examples associated with Bronze Age burials (e.g. Cairnpapple), which influenced Bradley's (2011b) assertion that Scotland's henges may be of Chalcolithic - Early Bronze Age origin. Wilkin (2011) has shown that there is a relationship between the distribution of henges and recumbent stone circles, and different forms of Beaker burials. *Figure 78* shows that late Beakers, Food Vessels, and jet and dagger burials share a spatial distribution with henge monuments in Eastern Scotland, many of which were placed within existing earthworks (Wilkin 2011: 32).

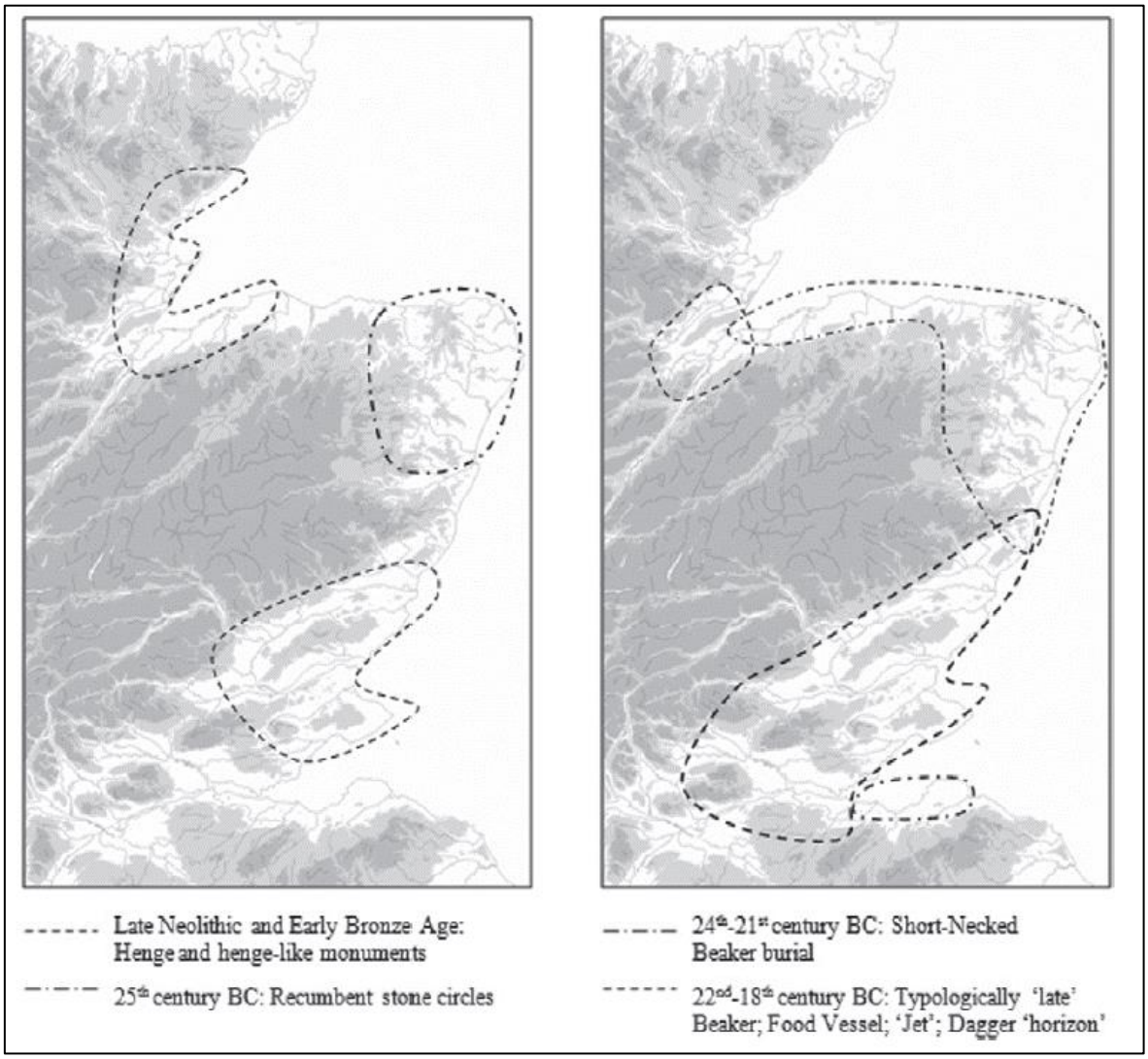


Figure 78: The distribution of monuments and burial traditions in Eastern Scotland (Wilkin 2011: Fig.5)

Stone circles also have a wide distribution and are difficult to date, but are often described in opposition to henge monuments due to the different nature of the boundary. *Figure 79* below highlights the spatial separation of henges and stone circles in areas of England, but also shows that stone circles and henges in Scotland share the same geographical regions. The spatial separation is not as clear as first thought, however there is an area of stone circles running along the Pennines 'spine' of England, almost parallel to the linear arrangement of henges in Yorkshire. Comparing the distribution of Grooved Ware above (*Figure 77*), there also appears to be a spatial separation between stone circles and decorative Grooved Ware sites.

This section has briefly discussed henge sites within the context of other cultural phenomenon. In doing so, it is evident that some assertions previously made (and discussed in Chapter 3) do not hold up against the available data; the association of decorative Grooved Ware clearly shows that it is not intrinsically linked with henge sites, whilst stone

circles and henges have a close association in regional pockets again highlighting the need to be able to move between scales of analysis in order to fully understand these sites.

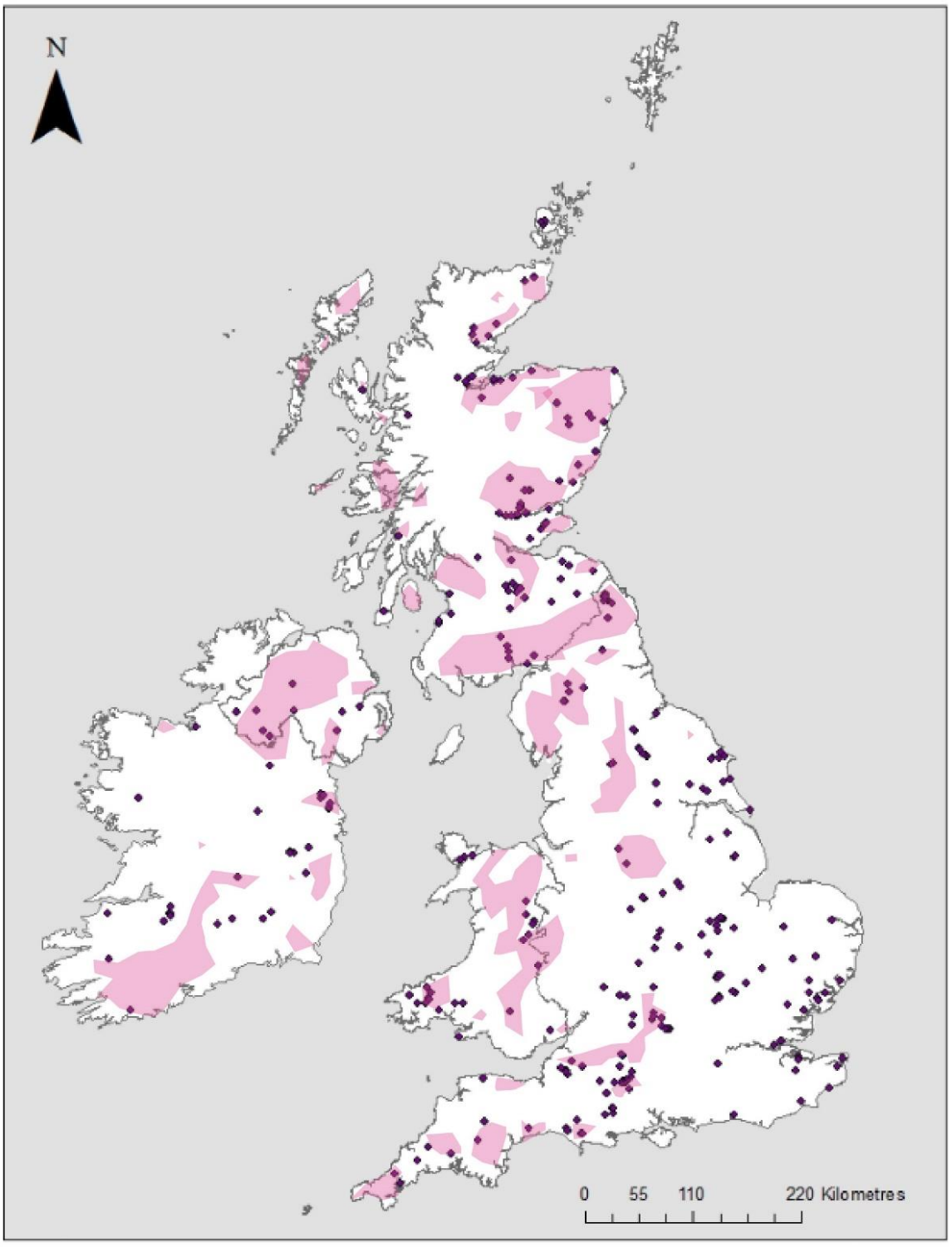


Figure 79: Distribution of analysed sites overlay with the distribution of stone circles (after Cunliffe 2013: figure 6.12).

7.4.2 Mapping the use of henges

Section 6.5 outlined the number of sites for which we can confidently say that the earthwork post-dated an area with evidence of previous activity. This section assesses the relationship between henges, prior activity, and a number of features and sites which are associated with the development of henge sites. Whilst some henge sites are directly associated with cursus monuments (e.g. Thornborough, Dorchester), there are no examples of henge earthworks enclosing earlier long barrows, even though the distribution of sites is similar (see *Figure 80*).

Surface finds and pits are suggestive of occupation to an extent, and the majority of henges have evidence of earlier activity through stray flint finds, but house structures from the Neolithic period are relatively rare finds across Britain. Hearths and house structures have been recorded at several henge sites (*Figure 81*): *Table 22* outlines the position and relationship to the earthwork (if known). The table shows the presence of hearths relating to pre- and post-henge activity. The hearths at Durrington Walls, Dyffryn Lane, Dorchester Big Rings, Cairnpapple and Stenness are considered to pre-date the construction of the earthwork; however, hearths are found in the partially silted ditches of Devils Quoits, Llandegai B, Nunwick, Gorsey Bigbury, Barford A and Barton Hill showing a reuse of the decaying earthworks.

Recent investigation into the henges of Yorkshire by Alex Gibson led to the discovery of a rectangular structure 60m from the henge at Yarnbury. The structure consisted of a bedding trench and post-holes with an internal hearth that showed evidence of long occupation, which along with the charcoal report, suggests that the structure was made of wattle or cladding (Gibson 2017: 192). The house is dated to c. 3715-3634 cal BC (SUERC-54901; Gibson 2017) and is similar to several such structures across the British Isles (see Smyth 2014; Darvill 1996; Barclay 1996). The relationship between the structure and Yarnbury henge is unclear as Yarnbury remains undated, however it is highly likely that the henge post-dates the house. The square/rectangular Late Neolithic house shape is also seen in the chalk platform with a central hearth associated with the inner henge at Marden. There are possible ephemeral stakeholes surrounding the chalk floor, and the floor was kept clean with charcoal and broken stones scattered in a midden surrounding the platform and an external hearth (Leary and Field 2012). A possible placed deposit of approximately 7 Grooved Ware vessels was found in the south-east side of the floor, suggesting a ritual function; Leary has interpreted the findings as evidence of a ‘sweat lodge’ function (*ibid*: 62).

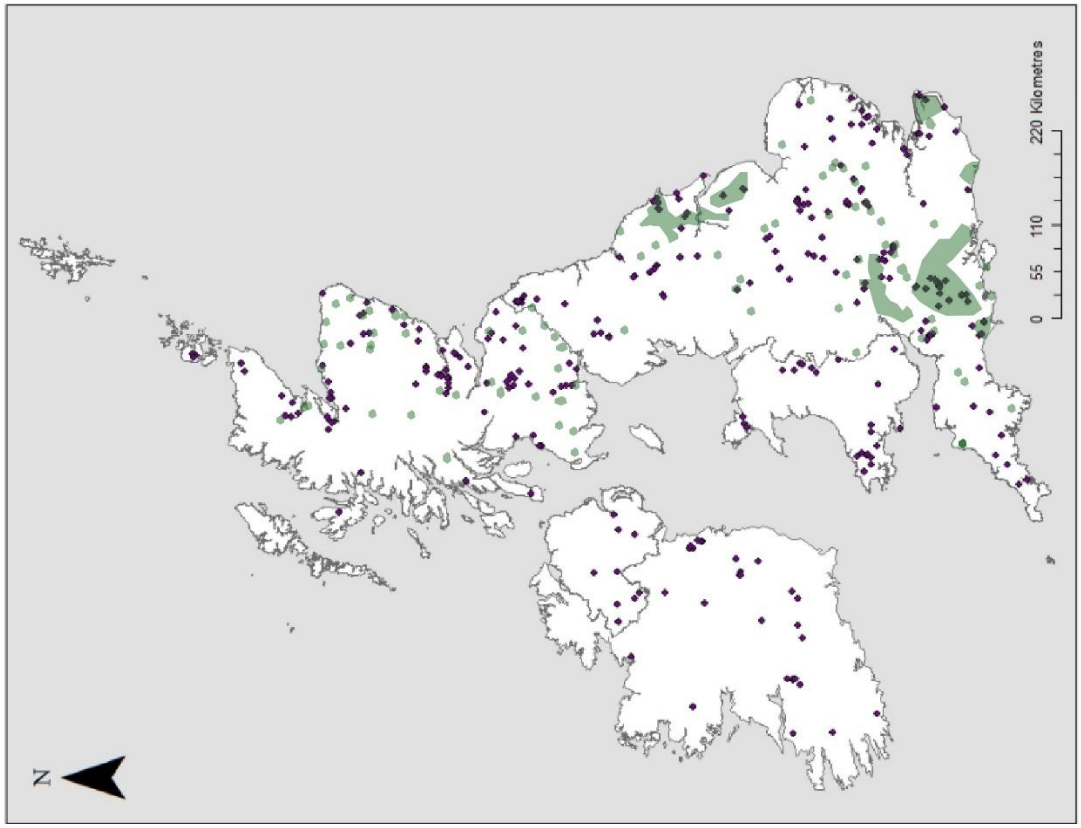


Figure 80: Distribution of analysed sites (purple) and the distribution of long barrows (green) (after Field 2006: figure 48).

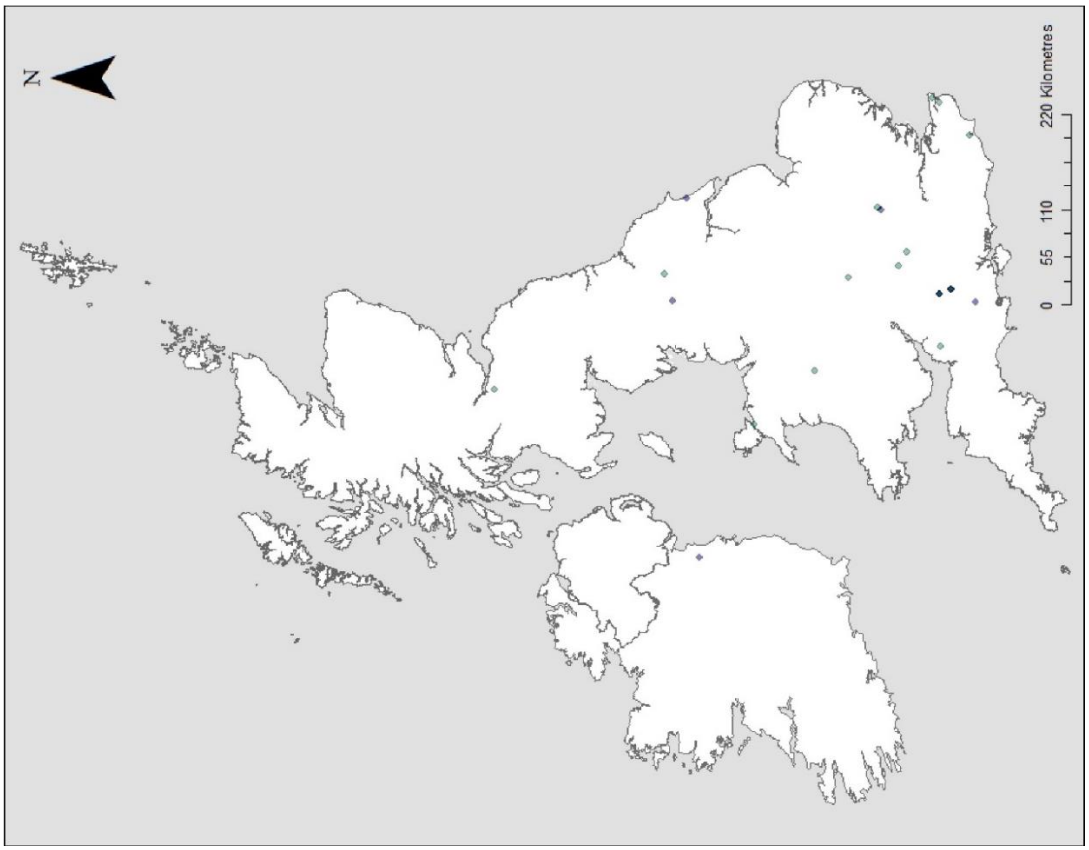


Figure 81: Distribution of hearths (green) and house structures (blue) at sites within the database.

Similarly, the house structures at the vast settlement at Durrington Walls consist of rectangular clay floors with sunken central hearths which predate the construction of the vast henge earthwork. Possible sandy platform structures have also been identified in the northern entrance of Thornborough South, whilst a rammed chalk platform overlay a cremation at the centre of Norton Henge and was arguably one of the last activities before the site was seemingly abandoned.

Table 22: Data relating to house structures and hearths found at henge sites

Site	Form	Location	Date	Relationship to henge earthwork
Hearths				
Durrington Walls	1D1ExtB2E	bank	LNeo	Predates - sealed beneath bank, associated with LNeo pottery
Dyffryn Lane	1D1ExtB1E	bank	2574-2400 cal BC (Beta-223792)	Predates - sealed beneath bank
Lord of the Manor site 2D	1D1IntB1E	Interior, off centre	c. 1950-1800	?postdates – considered later, but lack of dating evidence
Devils Quoits	1D1ExtB2E	Ditch terminal	LNeo	Postdates – contained within the ditch terminus
Llandegai B	1D1ExtB2E	ditch	1210-940 cal BC (GrN-26821)	Post-dates the earthwork, ditch partially silted
Nunwick	1D1ExtB2E	ditch		Post-dates the earthwork, ditch partially silted
Dorchester Big Rings	2D1B2E	Bank, interior, Ditch terminal		Pre-dates – areas of burning, hearth and pits. Hearth within ditch post-dates
Gorsey Bigbury	1D1ExtB1E	ditch	LNeo-EBA	Post-dates – ditch silted, associated with Beaker sherds
Cairnpapple	1D1xtB2E	Interior, bank	ENeo	Pre-dates – 1 sealed beneath bank, associated with plain bowls
Ringlemere	1D1ExtB1E	interior	2885-2640 cal BC	Unclear - Post-dates pit/post circle
Marden inner henge	1D1B	bank	LNeo	Unclear – associated with chalk structure and Grooved Ware
Barford A	3D3B	ditch		Post-dates – inner ditch
Barton Hill	1D1ExtB1E	ditch	Bronze Age	Post-dates – ditch silted to a high level
Playden A	1D	External to earthwork		Unclear – associated with a scraper
Stones of Stenness	1D1B1E	Interior, centre		Pre-dates - Stone setting, similar to hearths at Orkney houses
Structure - houses				
Durrington Walls	1D1ExtB2E	Internal and external	c.2500 BC, LNeo	Predates – settlement from ENeo-LNeo,
Marden inner henge	1D1B	bank	LNeo	Unclear – possibly beneath bank deposits, associated with Grooved ware
Mile Oak	1D1ExtB2E	Interior	MBA	Postdates earthwork - Roundhouse on a platform which cuts the ditch
Monknewtown (Ireland)	1B	Interior	LNeo-EBA	Associated with beaker pottery, possibly contemporary
Wauluds Bank	1D1IntB	External to earthwork		unclear
Wyke Down 2	1D1IntB1E Oval pits	External to earthwork	LNeo – Grooved Ware	Unclear – Grooved Ware at earthwork and structures.
Yarnbury	1D1ExtB1E	External to earthwork	3715-3634 cal BC (SUERC-54901)	Unknown – henge remains undated, likely predates henge

Two structures consisting of 4 post settings surrounded by an arc of smaller postholes, with burnt material suggesting that the structures were possibly burnt down; are external to the pit circle site of Wyke Down 2, but finds within the lower ditch fill and at the house structures include Grooved Ware sherds, suggesting contemporaneity. A similar structure was also found to the north-east of the possible Neolithic enclosure of Wauluds Bank (which is similar to Marden henge).

The ephemeral nature of the post-settings at Wyke Down and Wauluds Bank highlight the nature of possible structures, which could easily be destroyed through ploughing or missed during excavation. There is a rise in the number of square and rectangular Neolithic houses being identified in Britain, with the Yarnbury house being a fundamental find for studies of the Yorkshire Dales (Gibson 2017). *Table 22* suggests that the house structures dating to the Late Neolithic tend to pre-date the enclosing henge earthwork, whilst others are considered contemporary based on shared material culture, but require further investigation. This data shows that there is an association between houses and hearths with henge monuments, both as a possible dedicatory function (e.g. Stenness, see *Section 7.3.2* above) and related to settlements and occupation (e.g. Durrington Walls). The early Neolithic house at Yarnbury sits outside of the earthwork, whereas Later Neolithic houses are enclosed at other sites, e.g. Durrington Walls.

The relationship between henge sites and mortuary practices is more complex than the early interpretations of henges suggest: human remains have been found both in relation to pre-henge phases, and through to post-henge reuse of the site (discussed in *Section 6.5.1* above). In Scotland, henges are closely linked to burial practices throughout the period of henge construction and into the Bronze Age (see *Section 7.3.2*; Bradley 2011b). Burials are found in association with earthwork construction and pre-henge activity; for example, the earthwork at Forteviot encloses an earlier cremation cemetery, whilst similarly Broomend of Crichie encloses an area previously used for formal burial of human remains. The majority of barrow mounds are considered as additions to pre-existing henge earthworks, some of which respect the earthwork and are seen as an elaboration of the bank terminal (e.g. Arbor Low), whilst others occupy the central area. More accurate dates are required to fully investigate this relationship; perhaps the earthwork of a henge, which resembles other circular enclosures of the period (e.g. disk barrows, cremation cemeteries), are used because

the architecture is familiar, and the space has a sense of history and significance as Bradley has argued for Scotland (2011b).

Complexes such as Milfield lay within a landscape of concentrated pit digging (*Figure 73*), however pits are generally ephemeral unless marked in the landscape. Pit-digging is a significant activity of Neolithic life, both for domestic purposes and for structured deposition (Chapman 2000; Harding 2006; Anderson-Whymark and Thomas 2012). Pits and pit-features are the most common feature found at henge sites within the corpus; the difficulty lies in understanding the chronological relationships between pits and earthworks. Early Neolithic pits have been found at a number of henge sites and could be considered as creating 'places' within the landscape (see *Table 19*; *Section 6.3*).

Pre-henge activity highlights the significance of the enclosed space, as does the re-use of henge sites for later burials and reworking; it is more difficult to interpret the use of henge monuments contemporary with the construction of the earthwork. The enclosure of settlement sites described above, and the enclosing of previously important space, suggests a ritualised enclosing of significant places within the landscape; this appears particularly evident at sites such as Durrington walls. The formalisation of routeways is also clear within linear arrangements at Milfield and Thornborough (discussed further below). The Scottish evidence closely links henges with burial events, and so within this group it is possible to suggest a clear contemporary use (discussed above). Future excavation and dates could highlight further patterns that are not quite clear yet due to the limitations of chronological interpretation.

7.4.3 Henges and routeways

A position in an accessible location is a feature linking many of the Scottish sites, including the Ring of Brodgar, Ballymeanoch, and North Mains (Bradley 2011b: 181). This positioning at confluences, alongside major rivers or routeways, is a pattern also seen across the British Isles. As highlighted above, the henges of Yorkshire have a similar form and lie in a linear formation, predominantly alongside the River Ure. There is evidence of activity in the Thornborough area from the Mesolithic through to the Bronze Age and beyond; the plateau is historically part of a natural north-south pathway connecting Northern England and the Midlands (Harding 2013: 200).

The link between Thornborough and the polished stone axe trade is well known; the route suggesting movement down from the Group VI Cumbrian axe quarry at Langdale passing through the plateau on which the henges sit. It has been argued that they perhaps provided spaces for trade and exchange considering the concentration of group IV axes found across Yorkshire (Bradley and Edmonds 1993: 198; Harding 2013: 200). The six henges along the river Ure (Thornborough, Nunwick, Hutton Moor and Cana Barn) are associated with Catterick to the north, as well as a palisaded enclosure at Marne Barracks, the Devils Arrows (a row of standing stones), and Newton Kyme and Ferrybridge to the south (Harding 2013: 203). Their location close to rivers has led to the interpretation of these sites as marking out a 'Great North Route' through the lowlands, which runs north-south between the Pennines to the west and the hills of the Yorkshire coastline in the east (Vyner 2007; Harding 2013: 204). Bradley has recently argued, however, that we have been looking at the wrong monuments: the dates associated with quarrying at Langdale are much earlier than those associated with the construction and use of henge monuments (Bradley and Watson 2016). Instead, he asserts that it should be Earlier Neolithic sites, such as causewayed enclosures and cursus monuments, which we should be considering as these sites are considered to having an active role in the axe trade (*ibid*). However, the monumentalisation of space along the Ure/Swale valley, as suggested by Vyner (2007), does suggest a significance in the use of the plateau for movement. This reassessment of the relationship between henges and the axe trade fuels a wider argument about henges being commemorative sites linked to the past and significant places and routeways in the landscape (see *Section 4.5.3*).

The Milfield Basin has a similar linear arrangement through the landscape at a wider level (see *Figure 47*), whilst the Priddy complex has also been suggested to flank a routeway (see *section 7.3.1*) and Downes *et al.* (2013) have suggested that flat ridges immediately outside the entrances to the Ring of Brodgar could also suggest that a worn pathway was monumentalised over time with the embellishment of a stone circle and rock-cut ditch (2013: 91). The relatively narrow entrances to the enclosure would appear to restrict access (c.3m and 1m in width), which could reflect the landscape surrounding the earthwork as the site is situated at a point where a wider section of the isthmus suddenly narrows (Downes *et al.* 2013: 92). The significance of movement and henge monuments is shown above, whilst the addition of avenues and other elaborations further exaggerate routes of movement.

Section 5.5.3 has shown the predominance of landscape and site-based orientations, as well as the deliberate alignment towards solar and lunar events. The direction of henge entrances are often described in relation to solar alignments, and analysis in *Chapter 5* has suggested that for single entrance sites there is a preference for entrances facing east (45%: north-east = 11%, east = 20%, and south-east= 14%); this alignment also relates to the direction of the midwinter and midsummer sunrises (SE and NE respectively). Double entrance sites tended to be aligned SE-NW (30%) associated with the midwinter sunrise and midsummer sunset (see *Figure 42*).

7.5 Conclusion

Henge monuments are among a wide range of circular monuments constructed across Britain and Ireland during the Neolithic and Bronze Age. Distribution maps above have dispelled the perceived juxtaposition of henges and stone circles, and the close association between Grooved Ware as referenced in *Chapter 3*. Instead, the close association between henge sites in Eastern Scotland and material culture linked to the Beaker period are evident in *Figure 78*, and the spatial overlap of stone circles and henges across Scotland suggest that these sites were used and constructed within the same landscape.

The variation between early 'atypical' henges/hengiforms and their association with cremated remains arguably suggests that these sites were part of a developing number of circular monuments during the Neolithic. There are similarities between monument clusters in Southern Britain, but variation within the clusters themselves (see *Section 7.3.1* above). Within the large number of henge sites, it is clear that there is a large variation in form, size, location and date. The largest group within this corpus has the form of a single ditch and bank with one or two entrances, and this form has a wide geographical spread. Further regional distributions can be recognised including: the clustering of single bank sites which are comparable to Irish henges (*Figure 60*); the cluster of multi-ditched sites with similar form in Yorkshire; and the large henge enclosures found in Wessex. This chapter argues that there are instances where clear 'types' can be seen (e.g. Yorkshire; Scottish late henges), whilst also suggesting that there is a great deal of regional difference in form and use; this regional variation is clearly significant. Detailed regional studies are limited due to the low number of viable dates for henge construction and use. *Chapters 5* and *7* have shown that henges are not as markedly different to other Neolithic monuments as previously thought

and that the early henges across Britain, and the later small henges of Scotland, were part of a vast range of circular monuments.

This chapter has also suggested that the formalisation of routeways and direction of movement is a significant characteristic of many henge sites, seen at a number of complexes including the Thornborough and Milfield sites (*Section 7.4.3*). The idea of commemoration and community memory can be considered in relation to such routes that are known to have been in use from the Early Neolithic period. As Younger (2015: 289) has argued for a number of sites, and indeed as *Chapter 6* has highlighted, the majority of henge monuments appear to be constructed on areas of earlier activity, in contrast to Harding's suggestion that Thornborough is rare in its association with an earlier ceremonial focus (2013: 7; Younger 2015: 289). Of the excavated sites considered throughout this thesis, and those considered in Younger's biographies, it could be argued that perhaps one of the most significant characteristics of henge monuments across Britain is the lengthy life-history they have (Younger 2015: 289).

A further loose pattern which can be discerned, particularly when taking a regional approach to henge typology, is that henges became less 'atypical' over time. The view that the variation of henge-type may become more homogenised through the progression of time does, it would seem, point to a social undertone that might explain this harmonisation. Based upon the analysis presented in this thesis (*Chapters 5-7*), it is possible to suggest a tentative narrative for the development of henge monuments across the British Isles, namely:

- Early henges develop across Britain and are associated with various practices of deposition. Many of these early sites were associated with cremation cemeteries, including Llandegai and the Dorchester sites; in Scotland this association endures for the duration of henge construction. There is little evidence of types occurring here, as form and use varies – however the Priddy circles do suggest an early repetition of site form. The earthwork at the Stones of Stenness is an early example of a broad ditched henge from this period of construction.
- The spread of Grooved Ware and related house structures links sites within Wessex to Orkney, and possibly to Yorkshire (Yarnbury), with sites formalising into generally recognisable henge forms.

- In the North of England and Scotland, regional groups of henges are constructed such as those within the Milfield Basin. This occurs as henges within Southern Britain appear to stop being constructed and used, and barrows become the focus of activity with barrow cemeteries growing around henge earthworks.
- In Scotland henges then continue to be constructed into the Bronze Age, with small diameters and associated with burial activity, before ultimately becoming comparable in size form and use to contemporary barrows and cairns.

Within this narrative, henges stem from a wide variety of sites before formalising into a loose type but with some more specific and clearer types visible during some geographical regions and periods. Due to the different phases of construction and development, and the different associations with material culture and feature types across different periods and different regions, a loose type is perhaps the strongest we can suggest until further excavation and investigation provides new evidence and radiocarbon dates for construction. While it is clearly problematic to suggest a narrative with such a scattered data set, it certainly does represent a tantalising prospect and candidate for future research.

Chapter 8 – Conclusion

8.1 Contribution

This chapter summaries the key findings presented within this thesis and discusses the potential implications for the study of henges. It is clear from the data compiled throughout this project that there is sufficient evidence to dispel a number of the previously held views of henge monuments, as well as to discern new themes, patterns and potentially correlations. Furthermore, avenues for further research are highlighted, based upon the limitations and themes which this thesis has encountered but which could not be fully investigated, either due to a lack of time or lack of available evidence/data.

8.1.1 Thesis overview

Chapter 2 critically reviewed archaeological literature between 1932-1987 which took Kendrick's (1932) term 'henge' and repeatedly attempted to refine the definition of this type of monument, and to further classify the variation, which inevitably grew within the corpus of sites as the number rose. As a result, the terminology was gradually expanded to include terms such as hengiform. The chapter highlighted the effect such reclassification attempts have had on loosening the definition of henges and the increased number of sites discussed. Although heavily criticised, Clare's (1986; 1987) papers attempted the first classification that included different forms of earthwork and internal features as variables for assessment. This attempt shares similarities with a relational approach to typology, however the results did not appear to produce a clearer notion of types and instead highlighted even more variation (see *Chapter 2* for full discussion). Stemming from mistrust of the terminology, and the rogue use of the term henge within the media and by the general public (see *Section 2.5.2*), Alex Gibson argued that we should remove the loaded terminology within archaeology and instead view circular monuments of earth, timber, and stone as different forms of circular architecture. Whilst the argument is valid, Chapter 2 argues that it is impossible to depart from the terminology now that it has become so engrained into the literature and the public psyche. Instead, a more cautious approach to henge identification is advocated and that care should be taken when recording new monuments based upon little available information, and where henge-related terms are used, those terms, and their use, should be fully explained.

Chapter 3 focuses on literature that assess the origin and uses of henge sites, outlining the changing approach to henge studies over time. The prevalence of literature focusing on social organisation, which dominated early interpretation of henges, is critiqued in this chapter and it is argued that such models work at very few sites and are not applicable to the studies of henges as a group of sites. Feasting is a focus of literature relating to the Orcadian site of Stenness and the large henge of Durrington Walls, which has well-published evidence of ritualised feasting (e.g., Arabella and Serjeantson 2002). The material at Durrington Walls is, however, related to use of the site for seasonal settlement and arguably predates the enclosure of the area with the henge earthwork; similarly the evidence from Orkney is not clearly dated and could be assigned to a pre-henge phase of activity (see Younger 2015). A relationship between Grooved Ware and henge monuments is also seen, and to be limited to clusters in Southern Britain and Orkney. The chapter also outlines the significance of alignments and the association of entrances and solar movement, stemming from the focus of Stonehenge within the literature. It is argued, however, that alignments based upon movement are not necessarily an overarching theme but are clearly preferred in a number of regions (see *Chapter 7* above). These initial chapters represent a thorough discussion on henge research and classification-literature to-date.

Chapter 4 critiques traditional typology, and favours relational approaches to identifying emerging 'types' and how this can be applied to the study of henge monuments. The chapter also evaluates the biographical approach to henge monuments and its use for understanding the creation and use of henge earthworks, citing recent research. This chapter argues for a need to cover multiple approaches in order to gain a rounded perspective on large groups of sites, also highlighting the significance of interpretation at different scales. The thesis then analyses the corpus of sites, beginning with highlighting the increase in site identification and recording of henge sites since Harding and Lee's 1987 publication. The misidentification of natural cropmarks to WWII sites is also overviewed, in highlighting the difficulty in identifying sites based upon form alone (see *Section 5.2.1*). It is argued that the term hengiform has come to be applied to sites where there is uncertainty in a clear identification as a henge, contributing further to the mistrust of the terminology amongst archaeologists. Sites with enough information and considered to be henge monuments, hengiforms or

henge-related were then analysed based upon a number of characteristics throughout *Chapters 5* and *6*.

It has been shown that forms which occur most often tend to be those with single ditch and bank circuits with 1-2 entrances, and single ditch sites with 1-2 entrances. Whilst this is perhaps unsurprising, given that these forms fit the traditional early definition of henge monuments, it does support the idea of a repeated form that is worthy of further investigation. The forms identified within the dataset are mapped in *Figure 23* and *Figure 24,* and show the concentration of forms lie within a small number of general form types, with those with multiple ditch circuits (3 and above) being represented less often. These Figures are an attempt to map the virtual range of forms that a henge could take based on collected data. Analysing features has its limitations, in particular due to the extent to which sites have been excavated, and excavation rarely includes a complete excavation of the earthwork and interior. *Chapter 5* also uses GIS analysis to argue that sites generally tend to be located in the vicinity of water courses (see *Section 5.5.1*) and adds weight which supports to arguments previously made by Richards (1996a). GIS cluster analysis highlights the concentrated areas of henge sites within the corpus analysed, which included the core areas of henge sites as described in *Chapter 3*, but also included others that deserve further investigation. The clusters were discussed in detail, describing the landscape location of sites and any similarities or clear differences within these regional clusters. This analysis has shown that sites clustered within close regional proximity to one another do not exhibit clear repetition in form and use, which could suggest a large number of regional 'types'. This analysis was similarly limited by the number of unexcavated sites within clusters; however, some of the clusters for which there is chronological evidence are discussed in detail in *Chapter 7*. *Chapter 5* argues that the data highlights some simple general overarching patterns, which include the predominance of single circuit sites, and the tendency of sites to have broad ditch to interior size ratios. It also argues, however, that small scale detailed analysis of regional groups highlights the variation within such patterns.

The focus of *Chapter 6* is dating the construction of henge sites and identifying evidence of pre-henge significance. The chapter highlights the limitations of dating henges, exemplified with the limited number of sites for which chronological interpretations have been attempted. Pre-henge activity was found to predominately take in the form of Early Neolithic pit digging, and ephemeral evidence of Mesolithic activity, with occasional

examples of cremation cemeteries and house structures (see *Table 19*). Henge construction is shown to vary across a wide time span, however the evidence supports Bradley's (2011b) suggestion that the Scottish sites tend to be later in date than those in Southern England. Furthermore, this chapter argues that henges are often associated with the dead, with the Scottish sites showing a very strong correlation in that regard. *Chapter 7* then focuses on the patterns identified in *Chapters 5* and *6* and discusses pan-regional patterns in the dataset, before introducing regional case studies that highlight various levels of 'type'. The chapter uses biographical accounts of sites to show the importance of individual site-level analysis alongside larger scale typological studies. *Chapter 7* summaries these patterns and the clear variation visible within the dataset and tentatively suggests an interpretive narrative; a summary of the key findings and interpretations are discussed in detail below.

8.1.2 Database

This thesis marks the first complete study of henge monuments (recorded, confirmed and postulated) since Harding and Lee's influential catalogue of 1987. The database created during the course of this project includes information from HER records, excavation reports, corpuses, and grey literature.

The form of the relational database allows for detailed entries of individual aspects of earthwork architecture, features, location and dating and chronological information and interpretations to be included. Limitations of the database relate largely to a lack of site information. Where possible, sequence information is linked to features and radiocarbon dates, however for a number of sites there is little sequential information. Completing the dataset has highlighted the large proportion of henge sites (and possible henge sites) which have received little archaeological investigation. If a further study is undertaken using this dataset, the database could perhaps benefit from being updated with less descriptive text boxes in favour of detailed drop-down options making searches easier to run. The database represents the latest and most complete corpus of henge monuments since that 1987 publication. The catalogue represents a new research tool for archaeologists in the form of a searchable Access database and site-based bibliography (see *Appendix A*).

8.1.3 Thesis findings

This thesis argues that within the corpus of henge sites there are some overarching patterns relating to earthwork form and excavated features which can be extracted from the variation of the dataset; these include:

- The predominance of single ditch and bank forms with 1 or 2 entrances. This reflects the traditional definition of a henge monument and highlights that this group still represent the majority of sites within the henge class, regardless of loosening definitions.
- A general tendency for a broad ditch-interior ratio, supporting the argument first proposed by Harding and Lee (1987). This is generally more prominent in sites with single ditch circuits.
- A general pattern in entrances aligned towards SE for single and double entrance sites; but also, the significance of travel and movement through the landscape reflected in site orientation.
- A tendency for sites to sit on lower ground, with a low cost-distance to the nearest water source, as highlighted by GIS analysis.
- The predominance of pit-related activities at henge sites, within a vast range of feature relationships.

Whilst such patterns emerged from analysing the corpus of sites as a group, they are tentative and generalised patterns which do not suggest a clear distinct 'type'. A detailed review of regional clusters (as identified through GIS analysis of the distribution maps) highlights the variation between sites within a small geographic region, suggesting that whilst such patterns as those described above are visible, they are not repeatedly represented in clear geographical clusters. The geographical proximity between sites did not, in most cases, result in the repetition of form types and the creation of regional 'types'. The Yorkshire region, with its repeated form of henge at Thornborough and other sites, and the clusters of small henges within Northern Scotland are two examples where regionality and form type appears to be extrinsically linked. These regions, however, also exhibited variation of features and form.

Mapping the relationships between features highlights the vast range of links (as seen in *Figure 30*, *Figure 31,* and *Figure 32*) between features both within the interior of the

enclosure and immediately beyond the earthwork. This technique did not successfully reveal a clear sense of henge 'use', however pit-related activities represented the most occurring relationships. This mode of analysis may be useful if smaller groups were investigated, as part of a regional or chronological study.

Introducing dates and chronological detail to the analysis in *Chapter 6* also resulted in some key conclusions about sites within the catalogue:

- Pre-henge activity ranges from ephemeral evidence of Mesolithic flint scatters to large settlement sites; there is no clear preceding activity which leads to enclosure in a henge earthwork. The range of site use, and the significance of the landscape varies between sites, suggesting significance was regionally specific.
- henges are often associated with burials (pre- and post- dating the earthwork), particularly evident in Scotland and Northern England. Dates for burials at the Scottish sites tend to peak after 2200 BC and often predate the earthwork. Burials at 'formative' henges such as Llanndegai and others with evidence of burial are generally much earlier than those found in Scotland.
- There is a wide range of dates for henge construction, with those in Scotland being generally later. This supports arguments suggested by Bradley (2011b).

Although the dates for henge construction can be interpreted, these create a narrative that can only be strengthened or disproved as further sites are excavated. *Chapter 6* suggests that henges were constructed sporadically across the British Isles, and construction occurred over a long period from approximately 3000BC through to the Middle Bronze Age in Scotland. A clear focus of future excavations must be on the collection of dating evidence (where possible), but also further adding to our understanding of activity sequence, in order to add flesh to this narrative.

With a focus on regional and chronological case studies, *Chapter 7* allows for detailed analysis of individual henge sites based on biographical information. The Chapter argues that early sites tend to differ more from the generalised patterns suggested in *Chapter 5* and 6 (listed above), however there are similarities from clusters of early sites in Southern Britain (see *Section 7.3.1* for full discussion). Within the variation, however, it is possible to tentatively suggest regional and chronological 'strong' types, due to the repetition and similarity between sites; such areas include the late henges of Scotland, and the Yorkshire

henges. *Chapters 6* and 7 argue that henges became less 'atypical' over time, however, use and construction of later henge sites was concentrated in the North. The evidence tentatively supports the narrative presented in *Section 7.5*, namely:

- Early henge sites develop from irregular small enclosures and pit-defined ditches, and such monument complexes are generally clustered in the South. Some are associated with the creation of cremation cemeteries, but there is variation in the features described at excavated sites. The Priddy complex is an example of a clear intentional repetition of form, size and placement of enclosures in relation to each other; other clusters show a variation between the sites. The surrounding earthwork at the Stones of Stenness is a single early example of a broad-ditched earthwork of a form which becomes widespread over the course of henge construction.
- Over time there is some formalisation of form, with single bank and ditch sites with one or two entrances, and a broad ditch to internal area ratio constructed across the British Isles. There are also unique developments, such as the large enclosures in Wessex, and the recognisable form within Yorkshire.
- Regional clusters of henge sites in the North develop, potentially including those in the Milfield Basin. Henge sites in the North continue to be constructed after the majority of henge sites cease construction in Southern England.
- In Scotland, henges continue to be constructed and used into the Middle Bronze Age and have small diameters and are located away from large complexes. The Scottish data supports the association between burial events and henge construction across the Neolithic and Bronze Age.

To summarise, then, a variety of circular ditched sites emerge during the Middle and Late Neolithic, stemming from the creation of cremation cemeteries and ritual enclosures. These sites occur across different regions of Britain and Ireland before some formalisation of form and use is suggested by the loose patterning described above. Within this development there are pockets of stronger patterning which can more confidently be considered regional and chronological 'types' within the variation of the dataset.

Applying a relational approach to typology has successfully highlighted some patterns within henge monuments, but these can only be regarded as characteristics which form a 'loose' type. Relational theory and biographical approaches are similar in that they can lead us to

think about sites through the relationships between people, places and objects. Through the combination of a relational and biographical approach to henges, henge clusters have been shown to share similarities in form and date but differed in the sequence of site development (see *Section 7.3*). This thesis suggests that whilst it is possible to see loose types within the large quantity of henge sites analysed, it is only by considering sites as smaller groups that we can suggest strong types based on regionality and chronology. The combination of approaches, therefore, aids in the interpretation of henge sites: biographies have highlighted the different life-histories of sites post-construction, and the lack of clear dates for features can account for the lack of patterning visible in the feature analysis of *Chapter 5*.

The notion of henge use has been difficult to establish using this approach, due to the limitations of the data. Due to the lack of dates relating to features and earthworks within the corpus, chronological trends are also limited to a sample of the entire collection of sites. It is difficult to confidently suggest why henges were built, however pre-henge activities in *Chapter 6* and site-specific discussions in *Chapter 7* arguably suggest that there is an association between the construction of henge monuments and previously significant space. Visible traces of past activities and, arguably, collective memories of the community are key traits that made henge sites significant. The variation which we see could suggest that the earthwork itself, which is the focus of most investigative work, is not the most significant aspect of the site, beyond the fact that it is redefining a space which is significant. Younger's recent work (2015; 2016) focuses on the theme of commemoration at henge sites, and research at other significant sites suggest the continuous and sporadic use of important areas within the landscape throughout the Neolithic and Bronze Age (e.g., Grimes Graves, see Healy *et al.* 2018). In Scotland, henge sites are regularly associated with burial of the dead, with later examples comparable to barrows, however this close association appears to be regionally specific. Henges as representative of, and active in the creation of social organisation is not reflected within the dataset analysed here. The large henge enclosures of Wessex are unique in their proximity, and such an interpretation cannot be extended to other henge clusters. The later henges of Scotland are small and isolated and, therefore, are likely to have served a small community, or to have been used briefly or occasionally (Bradley 2011b: 184). Indeed, the later henges are comparable to barrows suggesting they became one of a number of similar circular sites in Scotland (including barrow and cairns)

(*ibid*). Early Scottish henges appear to share similarities with earthworks surrounding chambered tombs, whilst the later examples become comparable to contemporary monuments, until the distinction is difficult to see (c. Middle Bronze Age, see Bradley 2011b). Within this region, contemporary circular sites demonstrate a close relationship with each other, further exemplified by the similar distribution of henges and stone circles (see *Figure 79*), and the use of stone and timber in monument complexes such as Forteviot (see Younger 2015 for detailed biographical account).

8.2 Future research avenues and recommendations

8.2.1 Classification and the public perspective

The recent unanticipated heatwave, which affected the whole of Great Britain and Ireland (Summer 2018), has once again brought a number of headlines relating to new archaeological sites found as a result of the dry conditions.[24]

> "*What is a henge?*
> *A henge is a prehistoric monument consisting of a circle of stone or wooden uprights, with Stonehenge in Wiltshire one of the best-known examples.*
> *Conventionally, a henge comprises of a ditch with an external bank with one or more entranceways*." BBC News, April 2018

As highlighted in a previous chapter (*Section 2.5.2*), sites are regularly referred to as a henge in the headlines or described in relation to Stonehenge. The quote above relates to a definition included within an article relating to Raunds henge. As archaeologists it is important to disseminate our research and our findings to the wider public, and how sites are described is of the upmost importance. Cropmark sites which resemble stone, timber, or palisade enclosures are often described as new 'henges' due to their circular form – it is important to be clear about the site we are presenting as terms can come with a large amount of baggage. This thesis has investigated the large corpus of henge sites and related monuments, and has suggested regions in which a strong type can be seen (e.g. Yorkshire). It has also highlighted, however, the variation of all features across the British Isles, and the similarity of site morphology to a number of contemporary monuments (see *Figure 24*). The large number of sites previously listed as henges within the database (*Table 5*) attests to the

[24]Articles describe 'Stonehenge-like' circular monuments or ancient henge monuments - see https://www.livescience.com/63097-ireland-newgrange-henge-uncovered.html and https://globalnews.ca/news/4329755/henge-crop-circle-monument-ireland-farmer-field/ for example

confusion that can occur when labels are assigned to sites which have not received additional investigation. Perhaps un-investigated sites would be better classified within a two-fold system, with 'uncertain circular enclosure' being the main term used to group them, with a secondary group suggesting other terms such as 'possible henge' or 'possible barrow'. By focusing on the uncertain aspects of new sites, it would limit the confusion perhaps caused by cropmark sites being wrongly described at the first instance as a henge monument. Limited excavation areas also limit the information available from an entire site, but this is unavoidable. Focusing on pre-bank features and land surfaces, whilst being aware of ephemeral traces of recuts and fills, are other ways to increase the possibility of a strong interpretation. In contrast, perhaps the idea of 'mapping' the variation of groups of similar sites would provide a better appreciation of the subtle differences between sites, whilst highlighting similarities across site types. Whilst archaeological investigation and interpretation is ever-changing, it is fundamental that research is reported to the public, and that errors are fixed wherever possible.

8.2.2 Commemoration

The clear association of henges at areas of previous activity, and the notion of 'henging' being a form of commemoration (e.g. Younger 2015), leads interpretation towards considering why it was significant to create spaces in an area with such a lengthy history. Sites enclosing earlier house structures and cremations clearly enclose space with a significant earlier use; whereas others, such as the Milfield sites, are in a region with a concentration of pit-digging activities, suggesting the wider landscape is being referenced. Perhaps the way in which communities connected with the past differed in different regions and periods of henge construction. Commemoration as a theme was not a focus of this thesis, due to the recently completed work of Rebecca Younger (2015; 2016).

One avenue which could see further exploration is Neolithic and Bronze Age monuments as religious spaces. Monuments serve to express and recreate ideology, and although they may have had a variety of functions, such sites and their immediate landscape were 'where beliefs were most fully represented, articulated and negotiated' and can be considered as loci for spiritual power or energy (Jones 2000; Harding 2013). Clusters of sites such as Thornborough perhaps attest to the continued use of favoured locations, and how the landscape was repeatedly renewed with the construction of monuments; perhaps these

clusters could even be considered 'concentrated embodiments of group history and sacred belief' (Harding 2013) or 'ritual landscapes' (Thorpe 1984: 58).

8.2.3 Detailed regional studies and dating monuments

Henges have typically been considered to be a British phenomenon, marking a distinct change in monument construction in Britain, in comparison to the European mainland (e.g. Harding 2003). The term has been extended to some European earthworks, including the sites at Goseck and Pömmelte in Germany. Recent breakthroughs in aDNA suggest the influx of Europeans into mainland Britain during the Beaker period (see *Chapter 6* above and Olalde *et al.* 2018). A large number of henges, particularly in the North date to this period and into the Middle Bronze Age. Therefore, if we accept the argument that a large proportion of the population were incomers from the continental mainland during this period, the continued use and construction of sites suggests that they began to use and construct henge sites or that later descendants did. Further investigation could perhaps consider the influence of European notions of enclosure on the later henges of Britain (particularly those in Northern England and Scotland), giving a more nuanced view on the construction, and influences, of henges across the British Isles.

Through the virtual 'mapping' of henge forms in *Chapter 5*, and the regional discussions of *Chapter 7*, it is argued that there are similarities between henges and other contemporary monuments. Detailed regional studies considering all contemporary monuments through the time span of henge use would be a useful way to investigate the emergence of henge sites amongst a range of circular constructions. Bradley (2011b) has discussed similarities between different monument earthworks and henges, from both early examples, through to changing relationships in the Bronze Age. Such studies would analyse less sites and would perhaps find stronger patterns between henge use and other contemporary sites, or in contrast, would find clear differences which only add to the idea of henges as a separate monument type, with a clear purpose in its construction and use. Areas which could benefit from such a study are:

- The Thames valley complexes (e.g., Etton, Dorchester, Maxey) - the similarity between these 'atypical' sites, and the presence of a number of such clusters along the river valley, highlight a spatial patterning of sites which have earthwork forms that do not always conform to some of the loose patterns described above. Further

investigation into such sites and their construction could also support interpretations around the emergence of henge monuments within different regions.

- Scotland – Although Bradley has recently published a comprehensive review of Scottish henges, and some of the arguments he proposes in his '*Stages and Screens*' publication have been supported by the evidence presented here, a study of the earliest and latest henges in Scotland, in the context of contemporary monuments, could further support the idea of a specific form and understanding of what a henge was as apparent in Scotland. Further dating should be a priority at other small henge sites within Scotland, particularly if such sites are also found to date to the Beaker period and coincide with the influx of Europeans during this time.
- A pan-regional study of the embanked enclosures clustered on the Welsh coast, with a few outliers in Northern England and their relationship with Irish sites. A regional study could focus on other forms of evidence which suggest a clear cultural link between Ireland and Britain along communication routes.

8.3 Summing up

Applying a relational typology approach to the henge class, has highlighted the variation and confusion around site classification. The pattern which emerged supported some of those which were already known (e.g., Harding and Lee's ditch ratio statement); however, it was difficult to find a strong overarching type due to the variation evident within the catalogue. By forcing us to consider a larger range of variables, however, such an approach is successful in that it stops us from creating a tight definition based on few characteristics. Applying such an approach is more likely to succeed, I think, if the study is on a region or smaller group of sites. Whilst searching for a typology and advocating for the significance of biographies may seem juxtaposed, using both approaches allows for a clearer understanding of the variation. where a type may simplify a site to some general trends, a biography will highlight the unique characteristics and life of a site. This thesis has begun a process of trying to take back control of terminology which stems from rigid typological schemes. Henges should be seen as emerging from a range of similar sites, before evolving and changing in different regions, and for different functions, before slowly going out of use in the South, whilst they continue to thrive in the North. This project has also created a significant dataset, which represents the first detailed catalogue of henge sites since 1987.

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RCAGMW – Royal Commission on the Ancient and Historical Monuments of Wales. Available at: http://www.rcahmw.gov.uk/HI/ENG/Home/

Scotland's Rock Art – Historic Environment Scotland Rock Art Project. Available at: https://www.rockart.scot/about-rock-art/rock-art-of-britain-and-ireland/ accessed on 18/11/2018.

Stones of Wonder - Prehistoric Observatories in Scotland: a Webguide. Available at: https://stonesofwonder.com/maeshowe.htm

Appendices

Appendices A and B: Large files stored on CD.

Provided on the CD below are the following files:

Appendix A.1: All sites and associated bibliography (Word document)

Appendix A.2: Database metadata table (Word document)

Appendix A.3: Project Database (Access database)

Appendix A.4: Process information for tools used in ArcGIS (word Document)

Appendix B: Feature tables (word document)

- Appendix B.1: Table showing the number of sites with external features (over two pages)
- Appendix B.2: Table showing the number of sites with internal features (over two pages)
- Appendix B.3: table showing the number of sites with internal features as a percentage of the total number of sites of that form type (over two pages)

Appendix C: NMR Monument Definition

The following tables include the definitions of terminology used within the database.

Definitions are taken from the *Historic England Forum on Information Standards Thesaurus of Monument Types*

Available at:

http://thesaurus.historicengland.org.uk/thesaurus.asp?thes_no=1&thes_name=FISH%20Thesaurus%20of%20Monument%20Types

Definition of monument types/ features	
Avenue	A monument consisting of parallel lines of banks, ditches, stones, timber posts or trees which appears to mark out an approach to another monument or monuments. Use specific type where known. Specific types = embanked avenue, stone avenue, timber avenue.
- Stone avenue	A monument consisting of parallel lines of standing stones, which appears to mark out an approach to another monument or monuments.
- Timber avenue	Parallel lines of evenly spaced post-holes, which appears to mark out an approach to a monument or monument complex.
- Embanked avenue	Parallel banks (normally accompanied by ditches) marking an approach to a monument or monument complex
Barrow	Artificial mound of earth, turf and/or stone, normally constructed to contain or conceal burials. Use specific type where known
- Round Barrow	Hemispherical mound surrounded by a ditch (or occasionally two or more concentric ditches), often accompanied by an external (or occasionally internal) bank. Mound and ditch may sometimes be separated by a berm. Use specific type where known
- Long Barrow	A rectangular or trapezoidal earthen mound of Neolithic date, usually accompanied by flanking or encircling ditches, and normally associated with human remains. Mound construction and associated features vary considerably in type and complexity.
Barrow Cemetery	A cluster of closely spaced barrows and related monuments (e.g. ring ditches). Use with specific barrow-types where known.
Buried land surface	A former ground surface buried beneath an earthwork or other sequence of deposits (*includes paleosoils and turf lines*)
Cairn	A monument featuring a bank or mound constructed primarily of stone. Use specific type where known.
- Ring cairn	A low, wide, circular ring or bank of stones surrounding an open, roughly circular area which is (or was initially) free of cairn material. The inner and outer faces of the bank may be kerbed.
Causewayed enclosure	A Neolithic monument comprising an irregularly circular enclosing ditch, interrupted by frequent causeways, and often accompanied by an internal bank, also causewayed.
Circle henge	A henge which contains a circle of standing stones. *(using terms henge and stone circle are perhaps better as this acknowledges the distinct form of construction of each)*
Circular enclosure	A circular shaped area of land enclosed by a boundary ditch, bank, wall, palisade or similar barrier.
Cove	Prehistoric structure consisting of three or more standing stones in close proximity to each other, forming an unroofed approximately rectangular structure open in one direction.
Cremation cemetery	A cemetery comprising exclusively cremated human remains, some or all of which may be contained within pottery vessels.
Ditched enclosure	Area of land enclosed by one or several ditches (*in this database, the enclosure is denoted by its shape, e.g.* ditched enclosure – square)
Enclosed cremation cemetery	A cemetery of later prehistoric date comprising exclusively cremated human remains, some or all of which may be contained within pottery vessels. The cemetery area is partly or wholly surrounded by an earthwork bank and/or ditch
Enclosure	An area of land enclosed by a boundary ditch, bank, wall, palisade or other similar barrier. Use specific type where known.
Findspot	The approximate location which stray finds/artefacts were found.
Hearth	The place which a fire is made, often marked by discolouration of the soil, ash, charcoal and fire-cracked stones.

Henge	Circular or sub-circular enclosure defined by a bank and (usually internal) ditch, with one or two (rarely more) entrances. Of ceremonial/ritual function, they contain a variety of internal features including timber or stone circles.
Henge enclosure	A late Neolithic/Early Bronze Age earthwork enclosure distinguished from a henge primarily by its larger size, irregular shape, and greater complexity of internal features.
Hengiform	Small, circular Late Neolithic/Early Bronze Age enclosure which bears a morphological resemblance to henges, but may belong to another category of circular earthwork-defined monuments, or is enclosed by something other than a bank and ditch
Hollow	A hollow, concave formation or place, which has sometimes been dug out.
Inhumation	Interment of unburnt, articulated human remains (*in this database this refers to human remains not placed into pits, e.g. laying on a ground surface*).
Mound	A natural or artificial elevation of earth or stone. Use specific term when known (*e.g. Barrow, cairn*)
Palisaded enclosure	An enclosed settlement surrounded by a single or double row of close-set timbers embedded in a foundation trench, without ditches or banks. *(I consider sites without settlement evidence also to be palisaded enclosures)*
Pit	A hole or cavity in the ground, natural or the result of excavation.
Burial pit	A place where dead bodies are buried (*in this database I use terms such as* pit- burial*,* pit – cremation *to distinguish between the function of a pit*)
Ritual pit	A pit which appears to have been dug for, or which contains objects apparently deposited for, reasons other than storage, disposal or extraction.
- Pit alignment	A single/double line of pits set at intervals along a common axis or series of axis
Pit circle	An enclosure of Late Neolithic/Early Bronze Age date, related to henges, defined by a circular arrangement of pits, probably none of which originally held posts. More than one circle, concentrically arranged, may be present
Platform	Level area of ground, often compacted or constructed using a range of materials.
Post alignment	An alignment of posts/ post holes (*pit alignment can be used if a function as a post hole is unclear*)
Post hole	A hole dug to provide a firm base for an upright post, often with stone packing
Post trench	A construction trench dug to receive a line of posts, often with associated packing
Ring ditch	Circular or near circular ditches, usually seen as cropmarks. Use the term where the function is unknown. Ring ditches may be the remains of ploughed out round barrows, round houses, or of modern features such as searchlight emplacements. (*e.g. ring ditch for unknown function, or for unexcavated cropmarks, if function known: barrow, enclosure etc*).
Shaft (ritual)	Shaft which appears to have been dug for, or contains objects apparently deposited for, reasons other than storage, disposal or extraction (e.g. of stone/ water)
Stakehole	Hole in the ground which has been created by driving/hammering an upright into the ground
Standing stone	A stone or boulder which has been deliberately set upright in the ground. Use only for isolated stones. Otherwise use specific type where known.
Stone alignment	A single/double row of standing stones along a common axis
Stone circle	An approximately circular or oval setting of spaced, usually freestanding, upright stones. More than one circle may be present, arranged concentrically.
- Embanked stone circle	A circular arrangement of spaced stone uprights set within a high bank, often interrupted by a formal entrance gap.
- Recumbent stone circle	A stone circle featuring a stone which lies lengthways between two of the upright standing stones
Stone setting	An arrangement of one or more standing stones. Use particularly for isolated recumbent stones, or where original form of monument unclear. Use specific type where known
Structure	A construction of unknown type/function, either extant or implied by archaeological evidence
Timber circle	Approximately circular or oval setting of spaced post holes indicating the former presence of a free-standing arrangement of upright timber posts. Often regarded as a wooden equivalent of the better-known stone circles.

Appendix D: Sites found since the completion of the database and those subject to recent investigation (July 2016)

- Allendale, a section of curving ditch seen in Lidar. See report: 'The Allen Valleys and Hexhamshire Lidar Landscape Survey' Alltogether Archaeology (pages 25-26)
- Newbold-on-Stour, Warwickshire. Commercial excavation by Warwickshire Archaeology, prior to construction.
- Sinderby, discovered by Yvonne Luke researching Lidar data.
- Eston Nab, Cleveland. C.90m diameter site being investigated as part of the Ice and Fire Project.
- Woodbridge, East Anglia. 'henge' and barrow uncovered as part of a large ceremonial complex by Wardell Armstrong/Archaeological Solutions (in 2018). Site appears to show a long history of use and elaboration. See media coverage: https://www.bbc.co.uk/news/uk-england-suffolk-44455266 https://www.theguardian.com/science/2018/jun/28/archaeologists-stumble-on-neolithic-ritual-site-in-suffolk

Site Name	Year	Investigator	Classification/ Description	Status
Bredon			henge	Post-excavation
Bulford 1	2016	Wessex Archaeology	Henge	Excavation, Apr-May 2016
Bulford 2	2016	Wessex Archaeology	Henge	Excavation, Apr-May 2016
Iwade				Post-excavation
Marden	2015/6 - present	University of Reading	Henge	Excavation, Jun-Jul 2016 – Multiyear project began 2015, ongoing

Appendix E: Downloaded sources of GIS Data

GB National Outlines [SHAPE geospatial data], Scale 1:250000, Tiles: GB, Updated: 8 June 2005, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <http://digimap.edina.ac.uk>, Downloaded: 2016-03-15 11:12:39.449

OS Open Rivers [SHAPE geospatial data], Scale 1:25000, Tiles: GB, Updated: 13 March 2015, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <http://digimap.edina.ac.uk>, Downloaded: 2016-03-17 11:48:06.164

Strategi® [SHAPE geospatial data], Scale 1:250000, Tiles: GB, Updated: 17 November 2015, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <http://digimap.edina.ac.uk>, Downloaded: 2016-03-18 10:42:11.906 ('foreshor_region', 'lakes_region')

Ceremonial County Boundaries of England [SHAPE geospatial data], Tiles: England, Polygon dataset showing each current English County as defined by the Lord Lieutenancies Act 1997. Boundaries are mostly based on OS Boundaryline. This data is released under Ordnance Survey Open Data Licence, <https://data.gov.uk/dataset/ceremonial-county-boundaries-of-england>, Downloaded: 25th August 2017

Boundary-Line™ [SHAPE geospatial data], Scale 1:10000, Tiles: GB, Updated: 10 April 2017, Ordnance Survey (GB), Using: EDINA Digimap Ordnance Survey Service, <http://digimap.edina.ac.uk>, Downloaded: 2017-08-25 10:56:08.173 ('Boundary-Line-Historic-Counties_region')

Boundaries, Nomenclature of Territorial Units for Statistics Level 1 (NUTS1) (2018) for the United Kingdom, ONS Geography Open Data, downloaded from: <http://geoportal.statistics.gov.uk/datasets/nuts-level-1-january-2018-full-clipped-boundaries-in-the-united-kingdom>, Downloaded: 22/09/17